THE BUILDER

A Journal for the Architect & Constructor

SEPTEMBER 7, 1928 — No. 4466

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86TH YEAR

R.A. Exhibition, 1928.

Post Office Stores Factory, Birmingham.

Mr. Frederick A. Llewellyn (H.M. Office of Works), Architect. (See pages 372 and 387.)

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXV. No. 4466. SEPTEMBER 7, 1928

THE RISING GENERATION

THERE are still a few individuals who profess to see nothing but selfishness and anarchy in the modern trade union movement. But they are a dwindling army, and the majority of us are willing and anxious to accept the wonderful machinery which has been built up upon self-sacrifice, and make of it something more perfect for the good of the whole community. Human frailty has smirched the history of the trade-union movement no more, it may be, than it has that of the employers' federations, and it is, perhaps, unjust to exaggerate the occasions upon which this has happened in the one case as in the other. The whole essence of combined movements is the elimination of waste, whether this arises from the driving of one section of workers while another stands idle, or from cut-throat competition. In either case, it is the community that suffers from the waste, or thrives on its elimination: and it must be the community that takes the cause to its heart.

Taking up the final and summarising report upon Apprenticeship and Training, recently published by the Stationery Office,* and following up the previously published reports dealing with individual trades, one seeks within its pages some guidance for our workers of the future in the part they are to play in the making of the history of our trades. We have already noticed the report, dealing with this subject, as it affects the building trade, and we now turn to the wider outlook over the whole field of industry, for our industrial system is so complex that no part of it can profitably be set in a water-tight compartment and considered without thought for the rest of the world without.

Glancing through the historical survey of the apprenticeship movement with which the report opens, one is reminded of an important factor which was so much a part of the old guild system from which our trade unions first sprang, and which is so small a part of the latter bodies. We refer to the question of trade skill as distinct from trade rule, and there can be few who do not feel that the trade unions of to-day have neglected this important part of their functions, or that they would be in a far stronger position in all directions if they were able to stress the importance of individual skill and industry as the price of comfort and security of employment. Those who have the insight to read the message of history are struck by the obstrusive, if subtle, difference between the results of craftsmanship in these times, and those of past generations. Is it not largely because qualification for a trade has become so much more automatic than it once was? We commend consideration of this vital question to our trade union leaders, who show they are so much concerned with the development of industry that they can hardly be indifferent to any single aspect of the question.

Another interesting point about the history of apprenticeship is the old custom of boarding out apprentices in the homes of their employers. The modern tendency is to treat work as one thing, and the time of relaxation as another. The strenuousness of modern life may seem to make it necessary for the day's task to be put right away and out of mind, but it is hardly possible to take it quite seriously if this is done. The boy who enters a trade must benefit by experiencing the trade atmosphere throughout the whole of his day, if his trade is really to become a part of himself. It would seem, therefore, that the system of boarding out might be encouraged as far as possible, to eradicate that thoughtless conception of work as a grudging third of the day to be forgotten for the remaining two thirds. It may be bad for the picture palaces, but it would certainly be good for the community.

Comparing the percentages of employers taking apprentices in the various trades, the building industry does not show up very well, but in the percentages of apprentices to numbers of workers the comparison is more favourable; and it is clear from these figures that the building industry contains a greater proportion of small men working themselves as employers than the majority of industries. It is very difficult to say whether this is a good or bad thing for building, and the issue is much confused. There is no trade where the importance of responsible individual interest is so great, and the presence of a number of skilled men in business, and working themselves, with their hands, should be a good thing. But unfortunately the housing panic brought a certain number of men into the field with no greater competence to build than their ability to pay for a signboard, and these have not yet been entirely eliminated. Their elimination, also, involves others in a number of small disasters in which only they should in justice figure.

There appears to be a decline both in indentured apprenticeship and in premium apprenticeship, and the fact is more important than it appears. Training for life is perhaps its most important phase, and anything that marks this importance is a thing to be preserved at some cost. The formality of a legal contract and the payment of a premium serve to emphasise the importance of the period of training into which a lad is about to enter, and into which a parent, with some self-sacrifice, is preparing to enter him. Any looser view of the step that is being taken will only reflect itself in a lack of responsible sense on the part of the apprentice. Incidentally, the employer who has any sense of civic responsibility is more likely to remember that he has something to give if he is given something, however small, at the outset of his contract.

It is extremely interesting and comforting to note that in the building trade the percentage of apprentices failing to complete their training is very low—less than a quarter of similar defaulters in the engineering trades, and little more than a fifth of those in the shipbuilding trade. In this we may read signs of the interesting character of building work, as also of the apparently stable character of our training system. But it must not be forgotten that ours is a trade that has experienced no fatal slump since the war, whereas both the engineering and shipbuilding trades have passed through such alarming periods of unemployment as to leave little wonder that a number of lads have been frightened away from an occupation that presents such a black outlook in prospect.

A great deal of public money and energy has been expended on the compilation and publication of this series of reports upon an important subject. It is to be hoped that in return we may be able to devise improved ways of directing wisely upon the path of life the generation that is rising in our midst to carry on the work we have carried on or started.

* *Report of an Enquiry into Apprenticeship and Training*, for the Skilled Occupations in Great Britain and Northern Ireland, 1925-26. VII—General Report. London: Printed and published by H.M. Stationery Office. To be purchased at the following addresses: Adastral House, Kingsway, London; 120, George Street, Edinburgh; York Street, Manchester; 1, St. Andrews Crescent, Cardiff; 15, Donegall Square, Belfast; or through any bookseller. 1928. Price 5s. net.

NOTES

The Ministry of Health's Report.

The fact that during the year 1927–28 240,000 houses were built, which constitutes a record, is brought out in the ninth Annual Report of the Ministry of Health, of which a full extract is given on page 392 of this issue. This total brought the number built since the Armistice to 1,105,000, of which nearly two-thirds were built with State assistance. The cost of houses erected by local authorities dropped from £412 to £368 for non-parlour houses and from £477 to £437 for parlour houses. Since the war the total payment of Exchequer subsidy for houses has been £63,534,657. These figures would seem to bear out the Minister's contention that the subsidy was in part responsible for the high price of building. Otherwise some additional reason must be given for a drop in cost of £44 and £40 on non-parlour and parlour houses respectively. The figure given for the number of houses built during the year, 240,000, is misleading, to some extent, for an exceptional number of houses were commenced at the beginning of 1927 in view of the fact that subsidy reductions were to come into force at the latter part of that year. The figures available for the quarter ending March of this year show a very considerable decrease over those for the corresponding quarter of 1927.

A Doubtful Benefit.

Houses, and great numbers of them at that, are certainly required; but it is a doubtful benefit to the community to build at a cost which demands an economic return in the form of rent quite beyond the means of the people for which such houses are intended. The Report states that the average rental for all types of houses erected under the Housing and Town Planning Act, 1919, *exclusive of rates, electric light, etc.*, is 9s. 5d., a figure which is certainly beyond the means of a labourer with a large family. We feel that Mr. Chamberlain's policy of gradual reduction is, in the main, a wise one. There must obviously be an end to local authorities' borrowing powers—an end which will bring with it the finish of all building which is dependent upon uneconomic subsidy.

"Ugliness."

Referring to Mr. Hastwell Grayson's letter on this subject which appeared in our last issue, a correspondent writes as follows. "I was interested in Mr. Grayson's theory that the state of architecture in England today may be traced to the Gothic Revival enthusiasts. Mr. Grayson says they 'created such an atmosphere of doubt and confusion that the general public absolutely ceased to take any interest in building and turned its attention elsewhere. The standards of taste collapsed instantly.' I feel that there is much truth in this. It is very doubtful whether the general public has ever taken more than a superficial interest in architecture as an art, but it has been able to appreciate traditional building. Really it is all a matter of tradition. When we had a good tradition (in the eighteenth century, for instance) building, both urban and rural, maintained a consistently high architectural level. To-day, when we have a bad tradition (especially in the building of small houses) the architectural level, if such a thing can be said to exist, is consistently low. The average speculative house builder is a great 'traditionist.' He continues to copy, with a few minor modifications, the same old plan and the same old elevation that have done duty from the early days of the present century. If only he could be prevailed upon to copy a good model we might yet see established in this country a tradition of house building equal to that of the eighteenth century."

"Copyism."

"The purist" (our correspondent continues) "may object to the wholesale copying of a standard design, and most architects will agree with him. But we are confronted by a choice of evils. If we are doomed to the wholesale reproduction of small houses more or less of the same design (and we have to remember that the facilities for obtaining competent architectural supervision at a trivial cost have been in the main ignored) then it is obviously better to have a good model than a bad one. Unfortunately there is no means of compelling the speculative builder to observe any standard of architectural decency in the houses which he erects; but might it not be possible to educate him? I cannot believe he wilfully inflicts ugliness upon us. If we show him the light he may be guided by it, especially if it can be shown that by so doing he can increase the market value of his product. Here, surely, is work for the Ministry of Health."

Credit or Blame?

We are reminded of that debatable point whether there were architects in the Middle Ages. In all probability historians will be in a similar difficulty when they come to consider the origin and pedigree of the houses erected by this age. There have been many theories to account for a single controlling mind in the buildings of the Middle Ages, but will it be worth the while of the historians trying to explain (even if they could) the houses of this age? Indeed, so far as we can see, there is less desire to claim credit than anxiety to hand on the blame and confuse the issue.

Victorian Snobbishness.

Despite all that has been written about the much maligned Victorian age, it is our belief that in the long struggle that domestic architecture seems destined to fight, architects will look back to that age

A Cottage at Broadway.

From a Sketch by Mr. John C. H. Bawcutt.

Snows Hill.
From a Sketch by MR. JOHN C. H. BAWCUTT.

and sigh for that lost spirit of self-consciousness and pride of possession. Stripped of all humbug and abstractions, there is undoubtedly in all art a measure of pride of possession. It is one of the essential ingredients. Snobbery is the wrong word to apply to it, and a penalty must be paid for this cheap sneer. There is a distinction between pride and vanity, and a whole world of difference between pride of possession in a home and a complete denial of responsibility or interest. As a nation we have exploited successfully the snobbery—to borrow the language and analogy of the motor salesman—of non-possession of houses and homes. Two things seem to go hand in hand: the art of building beautifully with pride of possession, and a shortage of houses with complete indifference.

Hire Purchase System. WE have simply this to say about the hire-purchase system, that snobbery is the wrong term to apply to a system that may be in essence bankruptcy of common sense and ready money. It is, or was, a moral responsibility upon the citizen to provide a home for his family; it is morally wrong to encourage him, not only to shirk it, but to mortgage his earnings in indulging his luxuries. The bankruptcy of common sense is shown in the argument "that it is better that people of moderate means should ensure unlimited recreation than spend the money in secret drinking." Where they have learnt to put first things first there will be no need of specious arguments to help them to spend their balances to the best advantage.

Concrete Bridges. AN illustration of the new Spey bridge at Newtonmore shows that a simply-designed concrete bridge may go pleasantly enough in a beautiful landscape such as this road through the Grampians to Inverness. It is the attempt to make bridges ornamental (after an engineering fashion) which so often makes new concrete bridges objectionable. The hollowed batter to the walls of this bridge has a good effect.

Military Titles. A CORRESPONDENT writes to us upon a subject which certainly seems to be worth considering by the architectural profession. He questions the wisdom of architects publishing illustrations of architecture under military titles. He is referring, of course, not to the architectural works of the military authorities, but to those who, as architects, by profession, prefer their military titles.

Guise and Disguise. "IT seems to me" our correspondent goes on to say, "that in these days when there is so much ugliness in building we should track it down to individuals rather than create confusion, of which we already have too much. Architects believe that they can prevent much of our ugliness, although some, it is true, do not seem to be so sure of themselves. The public every now and again voices its opinion that architects are quite capable of producing ugliness; whereas most writers on this subject maintain that the only remedy for the public is to employ architects, to talk about them, and to recommend them to their friends. One need not drag in the question of registration beyond remarking upon the significance attached to the word ARCHITECT, and contrasting this significance with the indifference of those who expect the public to recognise the architect disguised under his rank as a commissioned officer in the army. Heaven knows any man may be an architect, or rather style himself an architect, but this is not a reason why a professional architect should be known as something else! It is essential that those whose training it has been to observe order and decency in the art of building (however much they may fail) should adhere to some title by which the public shall know them. In any case, it is open to question whether the client is likely to be impressed when his land is conveyed by a major, his house designed by a colonel, and the property sold by a general."

Decoration To-day. THE current number of *Architecture*—now on sale—is devoted to the subject of decoration in the modern style. The issue contains examples of recent wrought-iron work—Continental and English—shop fronts, details of doorways, lanterns, door-plates, interior decoration, plaster work, etc., and is one likely to prove of the greatest value to architects and decorators. A pertinent and critical article on "The Trend of Decoration To-day"—from the pen of Mr. Howard Robertson, F.R.I.B.A., S.A.D.G., is also included.

High Street, Broadway.
From a Sketch by MR. JOHN C. H. BAWCUTT.

GENERAL NEWS

Professional Announcement.

The Housing Committee of Glasgow Corporation has decided to recommend the appointment of Mr. Robert W. Horn, A.R.I.B.A., at present assistant director, to the position of director of housing. It was also agreed to recommend the appointment of Mr. W. B. M'Nab, chief engineer of the Housing Department, as assistant director and chief engineer.

Orford Castle, Suffolk.

Orford Castle, 16 miles from Ipswich, Suffolk, built in the 12th century, having failed to find a purchaser at auction, has been bought by Sir Arthur Churchman, M.P., in whose constituency it stands. He intends to offer the building to the Orford Town Trust, says the *Daily Mail*, which will raise a maintenance fund.

Lectures on Greek Art.

Professor Dearmer will give a course of nine lantern lectures next term in the Great Hall of King's College on Greek Art. The course will be on Tuesdays at 5.30, and will begin on October 9. They will include Pheidias, Myron, Praxiteles, Scopas and the other great sculptors, as well as architecture, both Greek and Roman. The fee is one shilling for each lecture, or seven shillings for the whole course.

British Glass Industry Convention.

The first Convention of the British Glass Industry will be held at Bournemouth from September 19 to 22. Mr. W. Butterworth, M.A., J.P., president of the Society of Glass Technology, will preside over the proceedings. Invitations have been accepted by Mr. Douglas Hacking, O.B.E., M.P., Parliamentary Secretary to the Department of Overseas Trading, and other Members of Parliament, to well-known public men, to the Mayor and Mayoress of Bournemouth, and to representatives of the trade associations, trade unions, learned societies and City companies, associated with the glass industry in this country.

Newcastle House, Lewes.

Mr. H. S. Goodhart-Rendel, chairman of the Art Standing Committee of the R.I.B.A., writing to the *Times* on this subject, says the case for retention and that for destruction have been inquired into, and, upon the evidence brought to the Committee, all practical considerations have appeared to be in favour of the former. It was stated, and well supported, that to remove the building was unnecessary and extravagant. "The charm and beauty of Newcastle House," he concludes, "are undoubted, and no lover of England could hear of its loss without regret; but its claims are upon the citizen rather than upon the architect in particular. It is for the citizen to use every means in his power to procure further debate upon what still lies under the unrefuted accusation of being a wasteful and useless act of destruction."

COMPETITION NEWS

Proposed Art Gallery, Christchurch, N.Z.

The City Council of Christchurch, New Zealand, are promoting a competition for an Art Gallery to be erected in Christchurch under the R. E. McDougall gift. The amount to be expended is £25,000. The competition will be held in two stages as follows :—

First Stage.—Pencil sketches, from which will be selected by the assessor three designs, each of the authors to receive £100 honorarium.

Second Stage.—The authors of the three selected designs to compete and the one adjudged the winner by the jury of award will be employed as architect.

The competition is open to all architects on the register of the Royal Institute of British Architects and all affiliated institutions. The assessor is Mr. S. Hurst-Seager, C.B.E., F.R.I.B.A. The jury of award comprises :—the Donor, the Rev. J. K. Archer (who is at present the Mayor of Christchurch); Mr. R. Wallwork, Director of the Canterbury College School of Art, Christchurch (and at present the President of the Canterbury Society of Arts); and the assessor. The date for questions is October 12, 1928, and designs have to be sent in by February 13, 1929. Conditions may be obtained from the office of the High Commissioner for New Zealand, the Strand, London, or from Mr. J. S. Neville, Town Clerk, Christchurch, New Zealand.

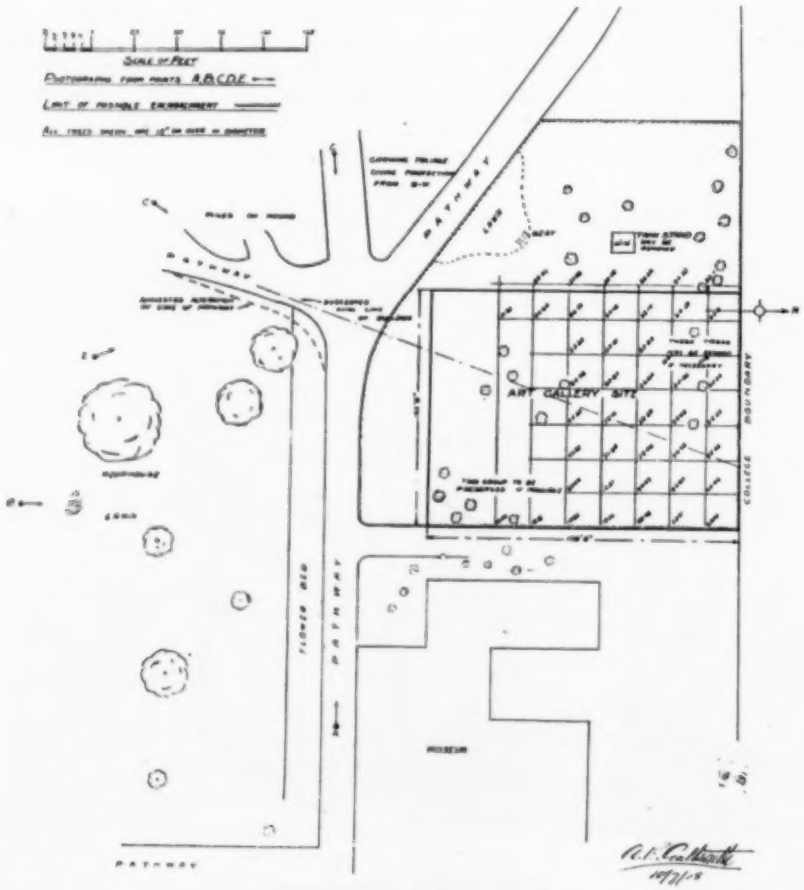
Rossendale Regional Planning.

With regard to the invitation for tenders for preparation of this town-planning scheme we have received from the Secretary of the Town Planning Institute the following notice :—

Members of the Town Planning Institute must not submit tenders for the above, as the conditions, as at present advertised, are such that the Council of the Institute cannot approve. The Council are in communication with the committee with a view to getting the conditions modified.

Band Pavilion, Harwich.

Harwich Corporation propose to offer a premium of £50 for a design for a band pavilion. Persons or firms desiring to submit designs should send their names not later than September 15 to Mr. F. Harold French, Borough Engineer and Surveyor, at his office at Harwich.



New Art Gallery Competition, Christchurch, N.Z. : Site Plan.

COMPETITIONS OPEN.

	Particulars published in "Builder."	Sending in date.
Town Hall and Municipal Buildings, Art Gallery, etc., for the Corporation of Southampton. Mr. H. Austen Hall, F.R.I.B.A., assessor. Premiums of £500, £300, £150. Mr. R. R. Linthorne, Municipal Offices, Southampton. Dep. £2 2s.	1928. March 9	—
Lay-out of Harbour Station Site, Ramsgate, for the Corporation. Premiums of £250, £150 and £100. Conditions from Mr. A. Blasdale Clarke, Town Clerk, Albion House, Ramsgate. Dep. £1 1s.	May 25	—
Concrete houses. Prizes of £100 and £50 (to Architects) and £50 and £25 (to builders) for best all-concrete houses erected in 1928. Assessor, Mr. E. Guy Dawber, A.R.A., Secretary, British Portland Cement Association, Ltd., 20, Dartmouth-street, S.W.1	June 8	
Entertainments pavilion at Exmouth, for the U.D.C. Premiums of £100, £50 and £25. Mr. C. Cowles-Voysey, F.R.I.B.A., Assessor	June 15	—
Public Baths and Washhouses at Carrs Crofts, Armley, Leeds, for T.C. Premiums of £300, £200, £100. Mr. Henry Price, A.R.I.B.A., Assessor. Mr. T. Thornton, Town Clerk. Dep. £1 1s....	July 27	Oct. 15
Elevation of proposed buildings in High-street, Newport (Mon.), for C.B. Mr. C. F. Ward, F.R.I.B.A., Assessor. Premiums 300 guineas and 150 guineas. Borough Architect, Town Hall. Dep. £2 2s.	Aug. 10	Oct. 15
Council School at Charlemont, for the West Bromwich Local Education Committee. Mr. H. T. Buckland, F.R.I.B.A., Assessor. Premiums: £150, £100, £50. Mr. A. Lewis, Education Offices, High fields, West Bromwich. Dep. £1 1s.	August 17	—
Wyggeston Grammar School for Boys, for Leicester E.C. Sir Felix Clay, Bt., F.R.I.B.A., Assessor. Premiums: £100, £75, £50. Mr. F. P. Armitage, Town Hall, Leicester. Dep. £2 2s.	August 17	—
R.I.B.A. Competition for Design of a Garage in the theatre area of London. First premium £350, second £140. Messrs. W. J. Tapper P.R.I.B.A.; Robert Atkinson, F.R.I.B.A.; T. P. Bennett, F.R.I.B.A.; W. Rootes; and J. E. Forbes, will adjudicate. Apply, 9, Conduit-street, W.1. Some recent garages were illustrated in the May-June issue of ARCHITECTURE	August 24	—

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Welsh School of Architecture, Cardiff.

SIR,—In the year 1920 a few of the undersigned addressed a letter to the Press as to the establishment of the new School of Architecture at the Technical College, Cardiff, recommending it to the attention of those in Wales interested in education and in the development of the arts. Reference was made to the great possibilities of the school, not only in relation to the architectural profession, but to the general appreciation of architecture. Eight years have passed, and it is now our desire to draw public attention again to the school and to the remarkable progress which has been made. Great as were the hopes for its future at the outset, it is gratifying to record that these have been far surpassed by actual achievement. As it has become much more than a local institution, being the only one of its kind in the whole of Wales, the new title, "Welsh School of Architecture," has been adopted.

We are especially pleased to note that the Royal Institute of British Architects has recently granted to the school the fullest possible measure of "recognition," with the result that students who pass successfully through the full five years' course of instruction are exempted from the final examination of the Royal Institute, which leads to the degree of A.R.I.B.A. In England this distinction only applies to four of the leading Schools of Architecture, those of the Universities of London, Liverpool and Manchester, and the Architectural Association School, London. It is noteworthy that in no English technical college has this level of attainment been reached.

The course of training at the Welsh School is a very thorough and progressive one, and, before obtaining either the diploma of the College or the degree of the Royal Institute, each student has to spend six or twelve months, as the case may be, in the office of a practising architect. Not only the Royal Institute, but its allied society, the South Wales Institute of Architects, has given full support to the school. Special lectures are given to the students by well-known members of the profession in South Wales, on such subjects as Civic Design, Professional Practice, and Planning of Buildings. There are at present some sixty architectural students, of whom thirty-one are full-time day students taking the five years' course. In the last few years eighteen men have been awarded their A.R.I.B.A. from the school.

Short as is the history of this new institution, four of its students have already been admitted to the Rome Competition in Architecture, and during the past session one of them was the only candidate out of London in any of the arts to receive commendation in the final round for the Rome Prize. Another student has won the silver medal and certificate of honourable mention for the Alfred Bossom Travelling Scholarship, and of three provincially trained students who passed successfully through the preliminary stage for the competition for the R.I.B.A. Soane Medallion, two were from the Welsh School. As showing that its course is in full accord with the modern trend in education, we may mention that five women are, or have been, full-time students. For some years this school was seriously handicapped by inadequate accommodation and equipment, but these have been greatly improved in the course of the last few months, and the Department is now housed at the Technical College in well-furnished new studios and lecture rooms. There is a steadily growing reference library, and the equipment generally compares very favourably with that of the other architectural schools.

For the initiation and building up of the school, much credit is due to the Cardiff City Council, and to Principal Charles Coles, B.Sc. (Head of the Technical College), but the notable success achieved is largely due to the energy and wide experience of the head of the school, Mr. W. S. Purchon, M.A., A.R.I.B.A., whose efforts have been ably supported by his assistants, Messrs. R. H. Winder, M.A., A.R.I.B.A., and Lewis John, M.A., A.R.I.B.A. Forming part of the Technical College, one of the splendid group of buildings in Cathays Park, Cardiff, the school is particularly fortunate in its environment. Students thus have constant opportunities of studying some of the best examples of modern public buildings in a civic centre which is unrivalled in Great Britain.

We trust that this letter will bring the work of the school more prominently to the notice of the public throughout the Principality. In spite of its remarkable growth, it is still not so well known as it might be, and we have every confidence in recommending the school to the favourable consideration of all those in Wales, who, as parents, heads of schools, members of education authorities, or patrons of the arts, are concerned as to the provision of sound and up-to-date professional education at a moderate cost. The continued progress of the school will mean much for architecture in our country in the future, and as its students go out into the world the results of their training and early associations at the school are sure to be productive of much good.

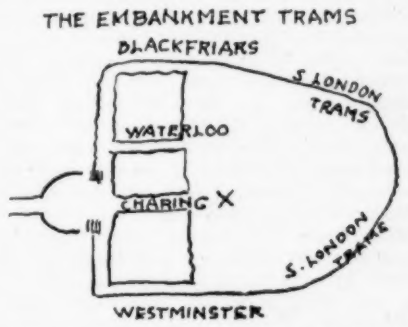
[The letter bears, among others, the following signatures:—Plymouth (Lord Lieutenant of Glamorgan); Treowen (Lord Lieutenant of Monmouthshire); A. J. Howell (Lord Mayor of Cardiff); W. Goscombe John (R.A., Hon. A.R.I.B.A.); Walter Tapper (A.R.A., P.R.I.B.A.); Percy Thomas (O.B.E., V.-P.R.I.B.A., 1927-28); Chas. S. Thomas (F.R.I.B.A., President, South Wales Institute of Architects); T. Alwyn Lloyd (F.R.I.B.A., Vice-President South Wales Institute of Architects); Charles F. Ward (F.R.I.B.A., Vice-President, South Wales Institute of Architects); E. H. Fawckner (F.R.I.B.A., Chairman, Eastern Branch, South Wales Institute of Architects); J. Herbert Jones (F.R.I.B.A., Chairman, Western Branch, South Wales Institute of Architects); J. Llewellyn Smith (M.B.E., L.R.I.B.A., Chairman, Central Branch, South Wales Institute of Architects).]

The Two Embankments.

SIR,—When the L.C.C. decided to proceed with the Charing Cross Improvement Scheme, one of the members exclaimed that it was a dream come true. Unless the Council exercise special care in seeing that the groundwork of their scheme is well prepared, the realisation may be something very different from the dream. If, for instance, the new railway station abuts directly on the river bank, to which it exposes its flank, instead of the promised domes and cupolas, we shall have a considerable stretch of the new embankment occupied by a blank wall, which in course of time cannot fail to become an advertisement hoarding, exhorting us to visit Thanet and other delectable spots, so that the day may come when we shall wish for the return of the Scotsman in kilts and the whisky advertisement.

The curve of the river between Blackfriars and Westminster determines to some extent the character of the respective embankments. On the Middlesex side, the outside of the curve, the Embankment is a road embankment, whereas on the Surrey side the inner or concave side of the curve, the Embankment in the logical course of development should assume the form of a garden embankment. The Belvedere-road is the shortest road route between Westminster and Waterloo Bridge on the Surrey side, and should be taken as the building frontage with the embankment garden facing it. One side of the Belvedere-road should be pulled down, and the other side become the Belvedere-terrace, a magnificent stretch of hotels and shops, open-air cafés, and residential flats.

A growing body of architects of repute, whose opinion should be worth the consideration of the Improvements Committee of the L.C.C., strongly disapprove of the proposed high-level bridge on the ground that it would seriously depreciate the value of the adjacent property in the central area, and would also perpetuate several of the objectionable features of the existing bridge, and would, in fact, substitute one obstructive eyesore for another, whereas Northumberland-avenue and Craven-street, with slight



modifications, stand waiting for the low-level bridge. The trams at present constitute a serious objection to the low-level bridge, but this difficulty could, by a slight reorganisation of the L.C.C. South London tramway system, be removed. On the Middlesex side a portion of the track opposite the new bridge would be taken up altogether, and on either side of the bridge-head there would be new termini, one for the trams coming from Blackfriars (near the Charing Cross Underground), and one (opposite Whitehall-court) for the trams coming over Westminster Bridge. This should occasion inconvenience to no one, as the people in South London would choose their tram according to the part of the Embankment they wanted. The South London tram system, instead of being a closed ring as at present, would be a split ring. The bridge would debouch on a large, open circus. Thus, what is perhaps the only serious objection to a low-level bridge might be best disposed of. S. CAMERON.

A New Church, High Wycombe.

A scheme for a new church in the district of Terriers has been promoted, the cost to be defrayed by Mrs. Field, widow of the Rev. F. Field. The architect is Sir Giles Gilbert Scott, R.A., 7, Gray's Inn-square, W.C.1.

Preservation of Headstone Manor.

An historic farmhouse situated amid picturesque surroundings has been preserved by the action of the Hendon Rural District Council in purchasing as a recreation ground and open space Headstone Manor Farm, near Harrow. The farmhouse, which is of monastic origin, and which, from 1344 on, was the country house for the Archbishops of Canterbury, is surrounded by a moat and ponds, and the buildings adjoining include a huge tithe barn erected in the 15th century.

Changes at Harrow School.

By the demolition at Harrow of a row of old buildings, including shop premises and the house of the school *custos*, a notable change has been effected to the appearance of the High-street opposite the house of the Headmaster. The old buildings stood in front of Druries, a school house which had been hidden away ever since its erection in 1864. The demolition is part of a scheme which includes the laying out of the space in front of Druries to a plan prepared by Sir Herbert Baker, architect of the School War memorial, and the provision of cottages for those who have been dispossessed.

ITALIAN STONEWORK.—I

By F. E. BENNETT, A.R.I.B.A.

THE subject of stonework in Italy naturally follows closely on the history of Italian architecture, for the things which have been done in stonework really constitute a history of its stone buildings. But to some people the interesting thing about stonework is not so much the way architects have made designs for it; not so much how it has been a thing ready and waiting to be modelled as the architect in all his wisdom has dictated, but rather as a material with an individuality of its own persisting to assert itself under all conditions and circumstances. There is interest in the way it has been extracted from the earth, shaped into pieces suitable for building and then arranged with good order and precision to make habitable structures appropriate for the use of cultured human beings. For it must be remembered that however ingenious and however inspired a designer may be, half the beauty of his building is due to the presence of the material for itself alone. Much joy is to be derived from a contemplation of the rough solidity of stonework, and one can feel the intensity of its expression.

In how many instances do we find stone influencing the styles of architecture, determining by its form and nature the extent to which designs can be carried? At Florence, Venice, and Verona it is the presence of good building stone which largely gives rise to a school of architecture just as in a smaller way in England the excellence of the buildings of Bath and the Cotswold hills is largely due to the existence of good stone near by. In the first place, there is the wresting of the stony masses from out of the earth crust; the conversion into regular shapes to make it suitable for transportation; the loading, carrying and unloading; the cutting into smaller blocks; hacking, sawing, tooling, cutting, chiselling, shaping and rubbing down. The army of workers, each adding his portion to the accumulation of effort, persistent and enduring, gradually causes the building to rise up from its foundations. The history of the quarries and mines from which the stone has come is a subject shrouded around with considerable obscurity, for, unlike the countries of Western Europe, the civilisation of Italy goes back so far that information on a matter of such relative unimportance is vague.

Except for the short period of brick building during the Romanesque period in the north, and for the few Byzantine examples, we see how the changing structure of Italian civilisation is constantly expressed through the medium of stonework. The expression is not always a conscious architectural one, often taking the form of pure utility. There are paved streets, cobbled alleys, city walls, embankments, the stone revetments on the hillsides for the making of vineyards, the bridges, the fortifications, the churches, the gateways, the palaces and the cottages. Everywhere is stone, and the vast mounds of the Apennines throw themselves up in jagged stony masses—inconceivable masses of stone.

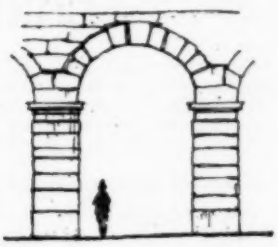
Touring the towns of Italy, one is constantly struck by the generosity of nature in providing the Italians with so much building stone, and not only in providing, but in making it easy to be quarried. One sees how in the two great times of Italy's history—the Roman and the Renaissance periods—the building in stonework was most massive and grand. The arenas and theatres of the ancients give a particularly vivid impression of the bigness of their quarrying and conveying organisation, and considering that an erection like the Colosseum is about three parts stonework, the quantity of labour employed to handle the stone must have been enormous.

Impressive, too, is the work of the Etruscans, who constructed great walls of stonework, solidly and without the use of mortar. Their activity as builders in stone it was that had so much influence on Rome, for their tradition and practice, combined with that of the Greeks, gave the foundation on which the Roman style developed.

A factor which adds so much to the beauty of the Italian stonework is the fine state of its preservation. Strong sun, little rain and pure air produce only a very slow action of decomposition, which leaves the stone even after centuries of exposure little changed from its appearance when first placed in the building. Even when decomposition has attacked the stone more seriously, the natural colour usually remains.

Building Stones.

Considered broadly, the building stones of Italy are of four groups:—Volcanic stones, limestones, sandstones and the marbles. The *volcanic stones* had a great deal to do with the magnificence of the building era of ancient Rome, for the Tufa, which was largely used by them, came straight from the surrounding hills—hills mainly composed of the material, a compact, dark, straw-coloured stone of fragmental formation. That was "Tufa Litoide," which was the hardest variety. Where the softer variety—"Tufa Granulari"—occurred in the hills, the early catacombs were cut out. The still softer variety, the Pozzolana, used so plentifully by the Romans in the making of concrete and mortar, was ground up and mixed with lime, and setting, formed a material of such extraordinary strength and durability that the ancient structures in which it was used have been able to withstand the ravages of twenty centuries of exposure.



TYPICAL ROMAN ARCH AND PIERS AT THE ARENA AT VERONA.

FIG. 2.

The stone Pepperino has been much employed also, and is particularly useful because several varieties of it are harder than Tufa. (There are little black particles studding the surface of it which, because of their resemblance to peppercorns, give the name to the stone.) Naples, like Rome, owing to the existence of volcanos near by, has had the great advantage of being able to obtain building stone very easily from the layers of lava which have been thrown up at various times.

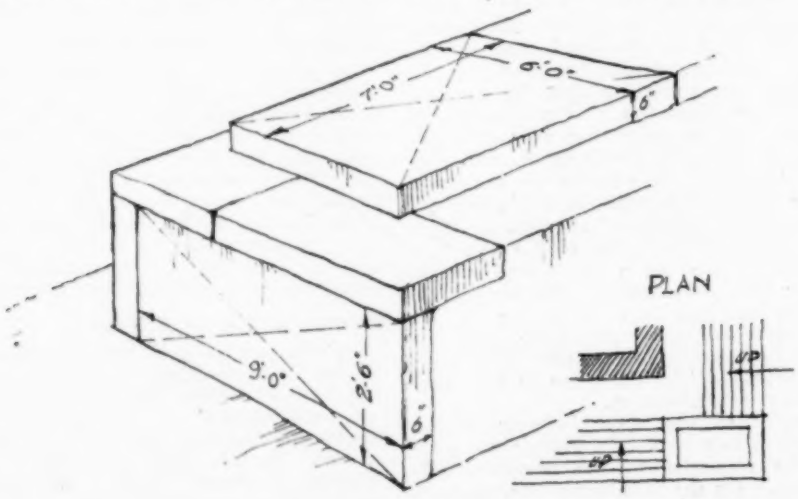
Of the *limestones*, Travertine from Tivoli is the most celebrated. This again was largely used in the building of ancient Rome, and is, in fact, still the chief building stone of that city. Its light straw colour and cellular form distinguish it as a stone of particular beauty. Prominent among the other limestones of Italy are the three famous ones of Verona:—Red Verona, Almond Verona and White Verona. These all take polishes, and are compact and fine grained. They are generally known as "Verona Marbles," and have been used all over Italy, the white being a favourite stone in Venice.

Of the *sandstones*, Pietra Sirena seems to be the one most generally used in Italy, and appears to be popular because of its greenish grey colour, which combines well with the umber coloured stucco walls so much used. This is probably the stone which Brunelleschi employed so successfully in Florence on the Pazzi Chapel, the Badia Monastery and other buildings. Other sandstones are the light grey of Tuscany, which is fine grained, and also the three varieties from Bordighera:—Light brown, medium grained; light brown, coarse grained; light blue-grey, medium grained.

Italy is well supplied with *marbles* and the mild and sunny nature of the climate, with its slowness to produce decay, is favourable to their use in building work. The subject of marbles, however, is a special consideration, and can scarcely be treated with building stones, although, as in Greece, marbles have frequently been used for solid walling. The cathedrals of Como and Milan are examples of this. Some of the marble comes from the famous quarries of Carrara, and much of it used to be imported.

The granites of Italy do not take up an important position as building materials, due undoubtedly to the more general use of marble, which is so much more subtle in composition and texture, and more easily worked. Except in ornamental details, such as columns and parts of altars and tombs, marble almost entirely supersedes granite.

Travertine as a stone, one might say, is more realistic than other stones. Having



PEDESTAL BLOCK AT THE ANGLE OF THE PALAZZO DELLA GRAN GUARDIA, VERONA.

FIG. 1.

none of the compact precise qualities of Portland or Bath stone, it has, on the other hand, an immediately antique appearance even when newly used. Its cellular composition conveys an immediate impression of its being cut out from the earth—and yet without being completely rough, for those portions of the surface which are compact are capable of taking a high polish and have a transparent appearance. The stone was extensively used in the building of ancient Rome, and it is still a building material much used, not only in that city but also in other cities abroad. Two famous examples of its use are in the Colosseum, where the outer walls are mainly Travertine, and in St. Peter's, Rome, where it is again used for the walls. Geologically, the stone is classed as a calcareous deposit precipitated from running water, and when first quarried is soft enough to be cut by a saw, but hardens on exposure to the atmosphere, retaining more or less its light straw-coloured surface.

Although Travertine is a lava—of volcanic origin—it has the appearance of a rough marble. In its natural state it has numerous voids of irregular shape which show in section on the cut surface of the stone. The nature of these voids suggests that the stone was originally formed by sudden volcanic eruption, molten matter in the liquid form being thrown down suddenly and then cooling rapidly, retaining air bubbles, which produced the voids.

It is interesting to notice the way in which the Roman builders used different stones according to the weights which had to be carried. In main walls where stress was purely vertical Tufa was frequently used, while at the points of special thrust such as in piers and arches the harder Peperino or Travertine was employed. The Colosseum is a particularly elaborate example of this mixed construction with three degrees of pressure supported by different materials. Travertine was not used during the earlier period of the Empire, but gradually took the place of marble for interior decoration during the Republic. Not until the first century B.C. was it eventually used for the solid mass of walls. In his "History of Architecture," Banister Fletcher points out that "the Greek method of building with large blocks of stone, unconnected with mortar, was employed in the buildings of the Republic. The practical spirit of the Romans, however, urged them to make a more economical use of materials, and instead of composing the walls of their monuments of squared blocks of stone they inaugurated the use of concrete . . . . using only rough labour."

The stones of volcanic origin have the advantage that they can be used without relation to their natural bed, especially when in positions demanding little resistance to stress. In the Gran Guardia palace at Verona an example is seen of the use of a block of volcanic stone of size no less than 9 ft. long by 2 ft. 6 in. wide stood up on its edge and yet only 6 in. in thickness. (See Fig. 1.) This structure, which forms the corner block of the flights of steps leading up to the building on two façades, is apparently built up with rough material and then faced with these large thin slabs of stone. The stone is, no doubt, taken from a thin volcanic strata, has no natural bed, and therefore does not flake when so placed on edge. The resistance to stress which it can offer when placed in such a manner is, of course, only comparatively low. In this instance, however, its use is completely justified and indicates a very economical practice. To build up this corner block of smaller pieces of stone for the sake of maintaining regularity of jointing would be very wasteful.

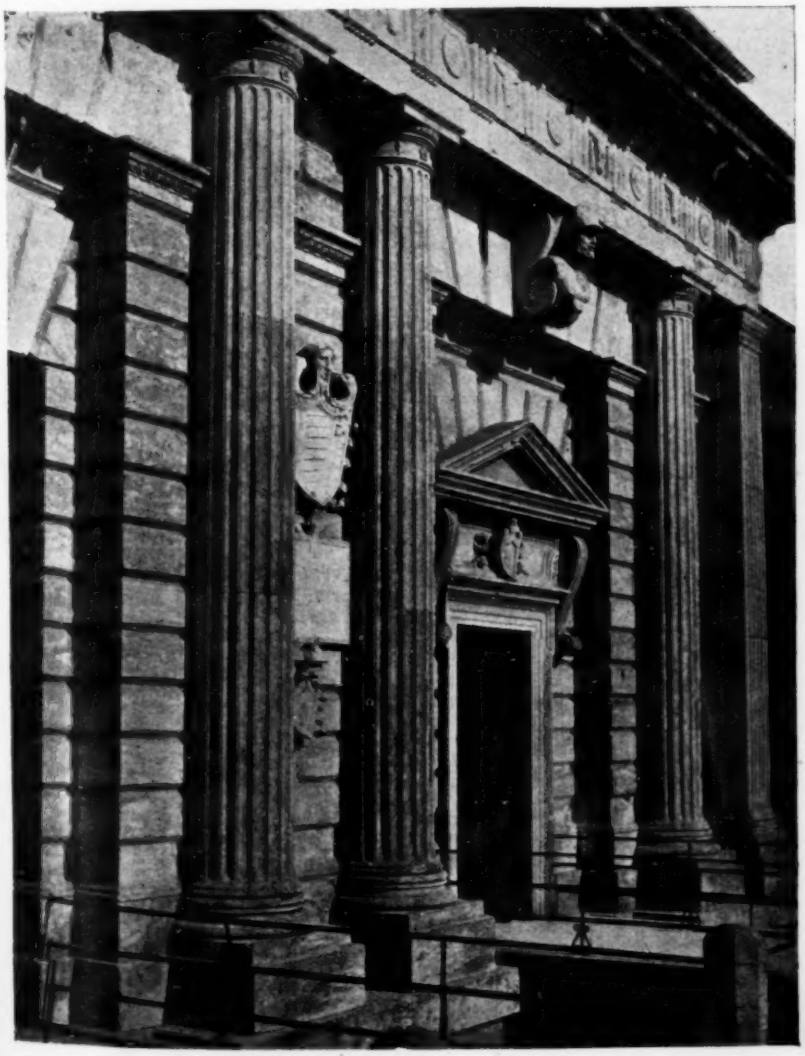


FIG. 3.

Porta Palia, Verona. By SANMICHELI.

Verona.

The stonework of Verona is directly dominated by the early Roman influence. The old Roman arena occupies a central position in the grand place where the Veronese come of an evening to drink and spend their leisure hours, and its great rough piers and arches remain year in and year out a background to the city life. There is not so much architecture about these arcades, forming as they do the inner wall of support for the tiers of seats carried above, but there is sufficient character of architecture in them to form a base on which succeeding styles can be moulded. (See Fig. 2.) This arena is so much a part of the city's existence that the Veronese people are constantly and vividly aware of their Roman ancestry, and while stone continues to remain easily at hand in the locality the prospect of their architecture ever diverging far from the parent theme seems remote.

Of the outer ring of the arena—the façade—still a small portion remains, consisting, like the Colosseum at Rome, of three tiers of superimposed order. This treatment is the key to most of the Italian Renaissance palace work and particularly to the work of Sanmicheli. One sees this Roman theme taken up and used in a variety of forms, subtly developed and added to with much ingenuity, the fine bold character always, however, being retained. In contrast, the Roman work is of a standardised form necessitated by the type of forced labour they used, while the personality of the individual architects is more strongly developed in the Renaissance work.

Probably few edifices in Italy display the sheer glory of stonework so well as those by Sanmicheli in and around Verona, and among those particularly the Porta Palia (one of the city gates). Here with the finest of courage he seized his opportunity and piled up the stonework which he loved so well to form a gateway of massive strength and fine proportion which would be worthy of his city, not only as it existed then but as it was likely to become in the future.

One feels that Sanmicheli was very familiar with the working of the stones at the quarries; he knew the sizes of the blocks that could be brought out, and he knew exactly the men who were available to work them. He did not fuss; he kept his stones large, omitting the use of ashlar where a rough finish would do. The carving of his ornaments is easy, not relying on delicate and subtle finish so much as on good design and correct placing. The easiness of the carving also harmonises with the character of the main treatment which he invariably employed, a treatment including plenty of rustication.

One feels that the stonework of his buildings is all craftsmen's work; there is that fine precision in setting out and then a rough unworried finish.

These impressions are strongly conveyed when looking on the fine gateways. Sanmicheli, perhaps more than any other architect, loved bigness and extreme simplicity, and he has shown the grandness which can be obtained by the sympathetic handling of stonework. He suppressed mouldings and ornaments so that the material would show in a pure form as stone carrying out his designs of exquisite proportion. The courses of varying heights indicate perhaps more than anything else his sympathy for the material, for by allowing this irregularity a great deal of labour and wastage in cutting away, which would have been necessary if all courses had been alike, was avoided. Seeing the fine large blocks of stone at the quarries, as he undoubtedly must have done, he had a strong objection to cutting them down more than was absolutely necessary, and he allowed considerable flexibility in the coursing of his wall surfaces so as to accommodate the various sizes of blocks.

ILLUSTRATIONS

PLATES

New Premises of the Argyle Benefit Building Society.

These new premises are at 105, Seven Sisters-road, N. The stone is St. Aldhelm, from the Bath Stone Firms, with the face as left from the tool. The brick facings are thin hand-made sand-faced bricks of mottled red colour. The tiles to the roof are also hand-made. The ground floor consists of the offices and board-room of the Society. The basement is occupied by the strong room and heating chamber. The upper floors consist of flats. Messrs. Mattock Bros., of Wood Green, are the builders.

Mr. Charles W. Bowles, F.R.I.B.A., is the architect.

House in Hamilton-terrace, N.W.

In this design the Georgian manner is successfully adapted to a large town house. Messrs. T. P. Bennett, F.R.I.B.A., & Son are the architects.

Proposed Aedes Annexae, Exeter College, Oxford.

The scheme shown in this drawing for the proposed Aedes Annexae for Exeter College, Oxford, was prepared as a hostel giving accommodation for approximately fifty undergraduates. Since the drawings were prepared a new site has been purchased, nearer to the College, and the ultimate form of the hostel is not, as yet, finally decided upon.

Mr. T. Harold Hughes, F.R.I.B.A., is the architect.

Scottish Legal Life Assurance Society's Premises, Glasgow.

The design illustrated was submitted by Mr. James B. Dunn, A.R.S.A., F.R.I.B.A., in a recent competition for new premises for this company, and was one of those premiated in the final competition. Full advantage had to be taken of the height next to Bothwell-street, namely, 100 feet. The street floor and basement were devoted entirely to business premises. Five floors of offices were provided, the two topmost floors being reserved for the offices of the company as prescribed by the conditions of competition. The cost of the buildings was estimated at £339,594.

Bungalow, Witley, Surrey

This bungalow has been erected for Mr. J. A. Wattie on a site adjoining the West Surrey Golf Course. The building has been set in a background of trees on the rear of the land, which slopes sharply from back to front. A wide and elevated terrace occupies the whole of the frontage and commands an extensive view of the Surrey Hills. The staff bedrooms are placed in the roof and a wide expanse of tiling has been preserved by placing their windows at the back. The builders were Messrs. Wilton and Sons, of Witley, and the architect, Mr. H. R. Gardner, F.R.I.B.A., of 32, Craven-street, Strand, W.C.

"Church of Our Lady," Bangour Village, West Lothian.

The foundation-stone of this church was laid in November, 1924, and it is expected that the building will be ready for occupation by November, 1929. The cost of the building has been defrayed by funds raised locally, and materially assisted by the District Board of Control. The church, when completed, will be handed over to that body as an adjunct to the hospital. It is intended that the church shall be undenominational, but the internal arrangements are so planned that it can be used by all denominations. The fabric is entirely stone built, with whinstone rubble for an outside facing, and freestone throughout the interior. This latter stone has been obtained from Hamilton Palace, which has been recently demolished. The church consists of nave, north and south aisles, chancel, sanctuary, memorial chapel, rest room, tower, cloisters and ventries. The internal length of the church is 160 feet, and the width, including the aisles, 50 feet. The tower is 24 feet square, terminating in a copper spire 110 feet high from the ground. An organ of three manuals, built by Messrs. Jardine and Co., Ltd., of Old Trafford, near Manchester, has already been presented to the church. The building work, including mason, joiner, slater, electrical, heating, lead and wood carving, is being carried out entirely by the hospital staff. The floors throughout are stone paved. The internal finishings are entirely of British oak, and include roofs, panelling, stalls, reredos, and seating. These finishings are being made in the local workshops, and the carving is being carried out on the spot. The slates are from the Caithness Pavement Quarries, Ltd., and the only outside contract, which is for the copper-sheathed spire, has been placed in the hands of Messrs. Ewart and Son, Ltd., London.

Mr. H. O. Tarbolton, F.R.I.B.A., of 4, Colme-street, Edinburgh, has designed the church, and is also responsible for the designing of all internal fittings and furnishings.

Incorporated Dental Hospital New Buildings, Glasgow.

These premises will be erected in Renfrew-street, Glasgow. The structure will be steel framed and fire-proof throughout. The frontage to Renfrew-street will be of white stone, but to allow of the greatest amount of light for the laboratories a large portion of the frontage will be of cast-iron. The remaining elevations will be finished in white brick. The building consists of five floors. The basement will contain a prosthetic laboratory, fitting and waiting-rooms, common room, laboratories and laundry, etc. The ground floor provides accommodation for the administrative department, common waiting-room, extraction rooms, anæsthetic and rest rooms, and is arranged in such a way that patients after treatment do not have to pass through the waiting-room again but leave by a separate exit. The first floor is exclusively for the use of the Dental School and contains pathological and histological laboratories, tutorial rooms, museum and library and research laboratories. The second floor contains lecture rooms, demonstration rooms, X-ray department, children's conservation room, waiting-rooms and also caretaker's house. The third floor is practically taken up by the main conservation room, providing 71 dental chairs. There is also a demonstration room, inlay casting room, dispensary, office, and waiting-rooms. The power and light will be electric. Vacuum cleaning plant will be installed throughout the building. The interior finish of the building will be carried out in accordance with the best hospital practice. It should be pointed out that the perspective which we give shows a preliminary design which will be modified in execution.

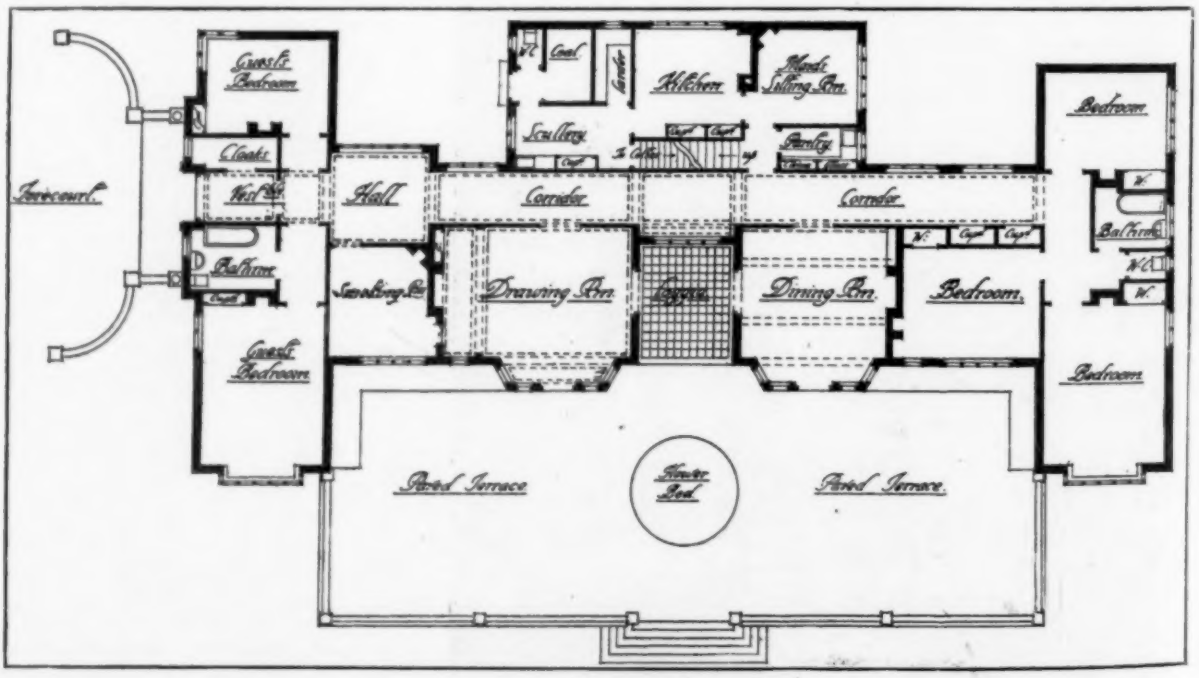
Messrs. Wylie, Wright and Wylie, of 204, West Regent-street, Glasgow, are the architects.

Post-Office Stores Factory, Birmingham.

This factory was required for the repair and assembly of telephone instruments, and as the nature of the operations carried out involved very careful and accurate work, a high standard of daylight illumination was called for. Actually the proportion of window to floor area is about 30 per cent., and the most delicate operations can readily be done in any part of the building set apart for process work. The building generally is of a simple steel-frame type construction, the space between the stanchions being filled in with metal sashes and glazed. Apart from the ground floor, which is used principally as a canteen, the outer walls are for all practical purposes formed entirely of glass, brick filling only being used from floor to cill level.

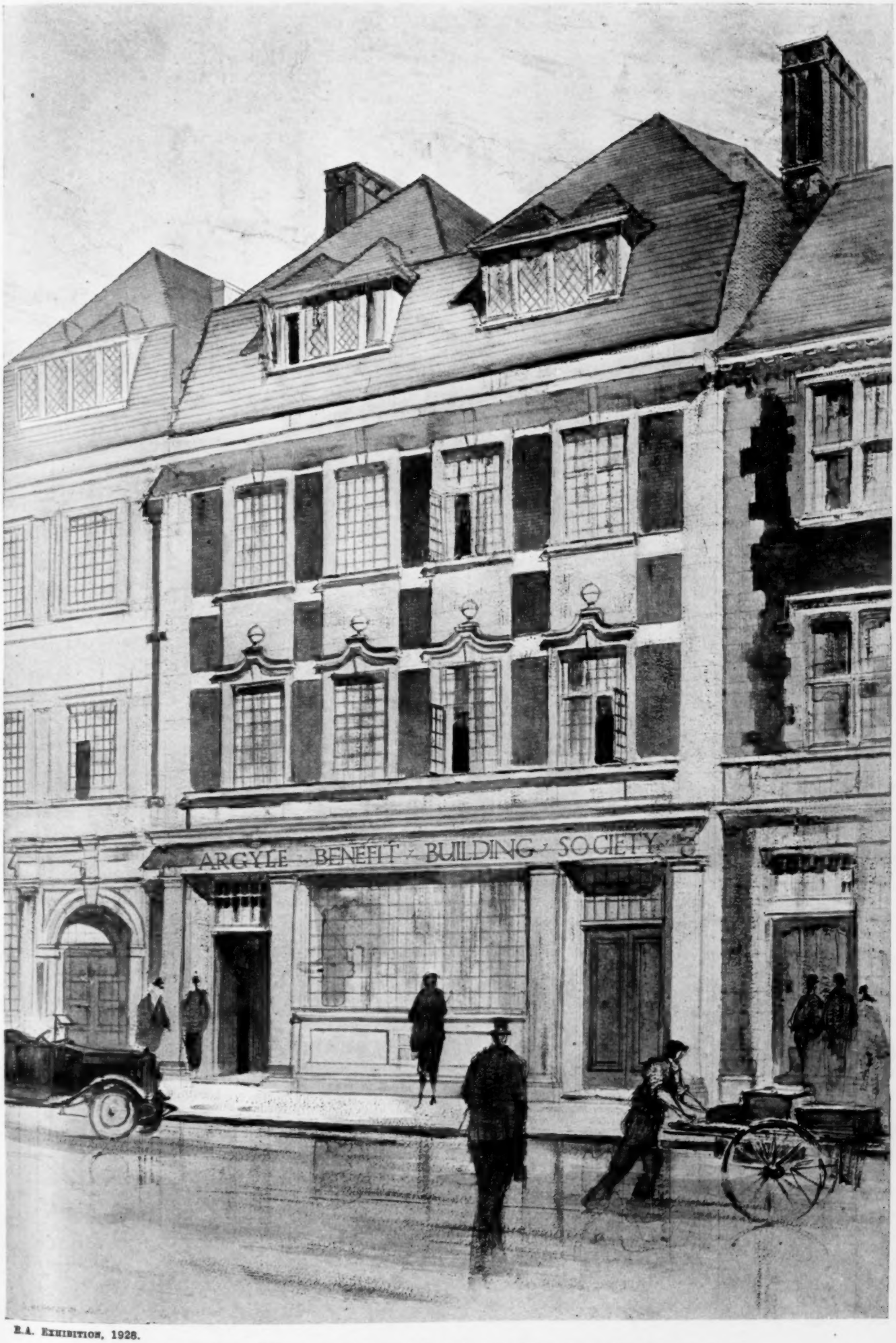
In planning the building one large room on each floor for uninterrupted process work

(*Continued on page* 394.)



—Ground Floor Plan—

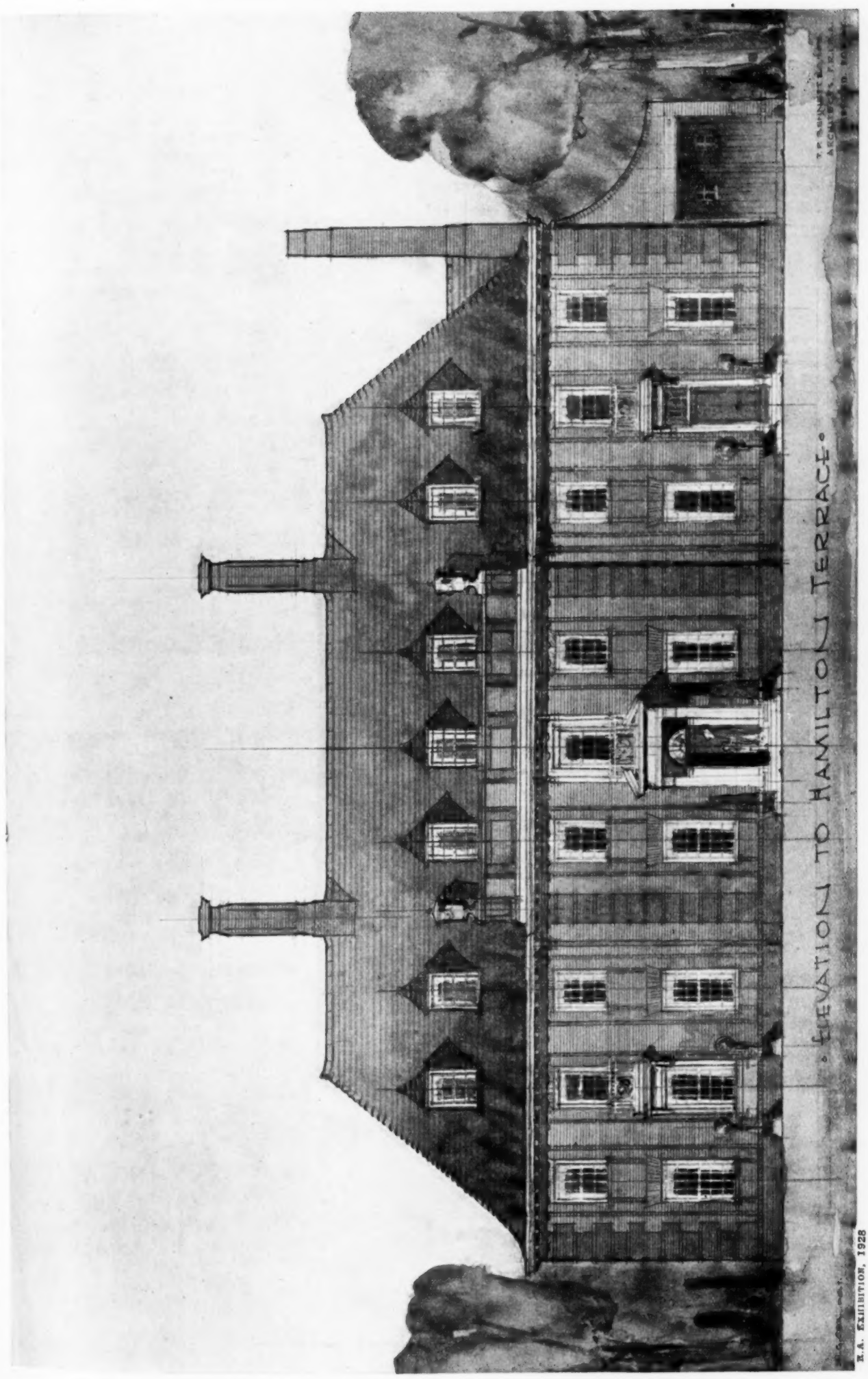
A Bungalow at Witley, Surrey. MR. H. R. GARDNER, F.R.I.B.A., Architect.



R.A. Exhibition, 1928.

New Premises of the Argyle Benefit Building Society, Seven Sisters Road, N.

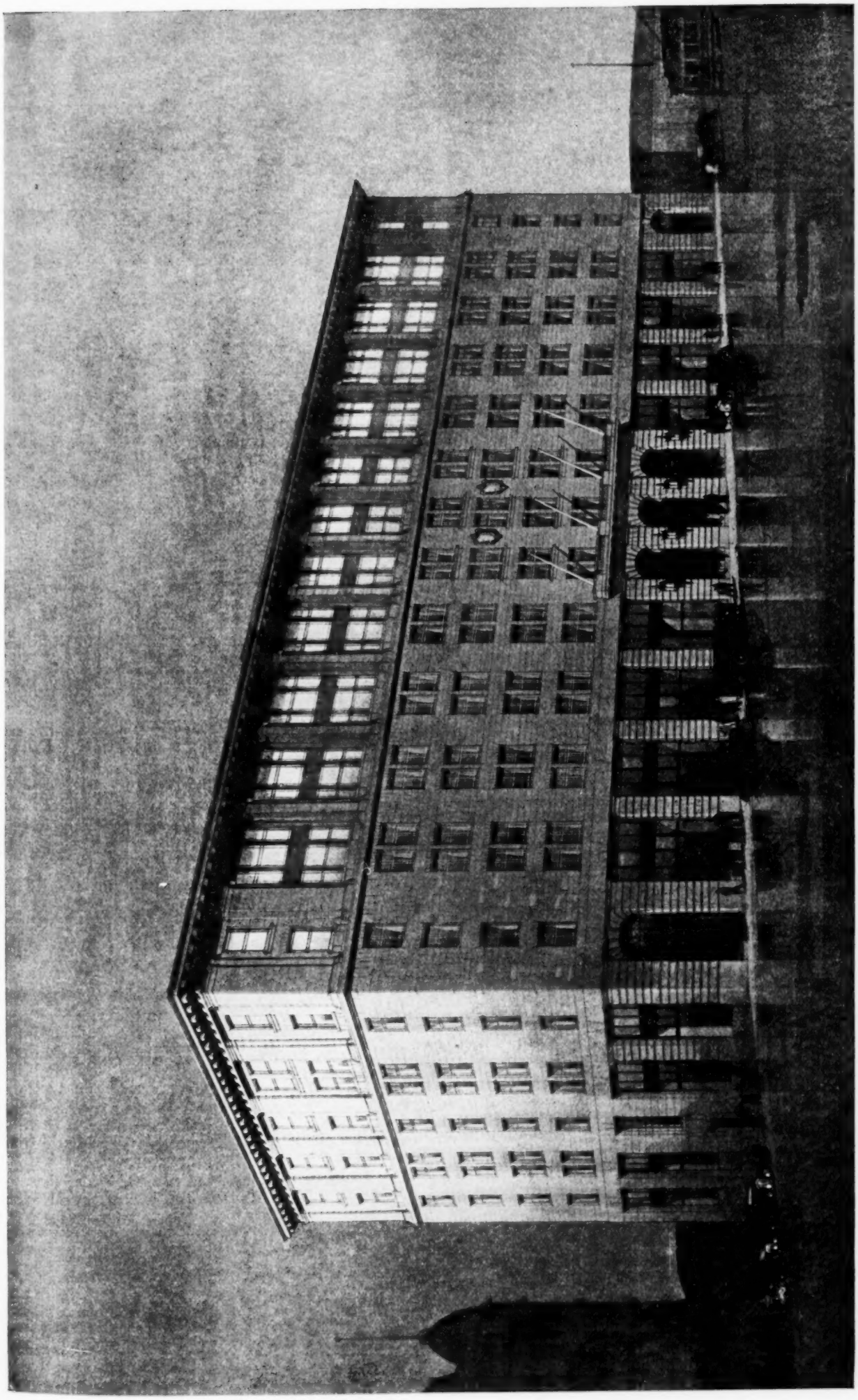
Mr. Charles W. Bowles, F.R.I.B.A., Architect.



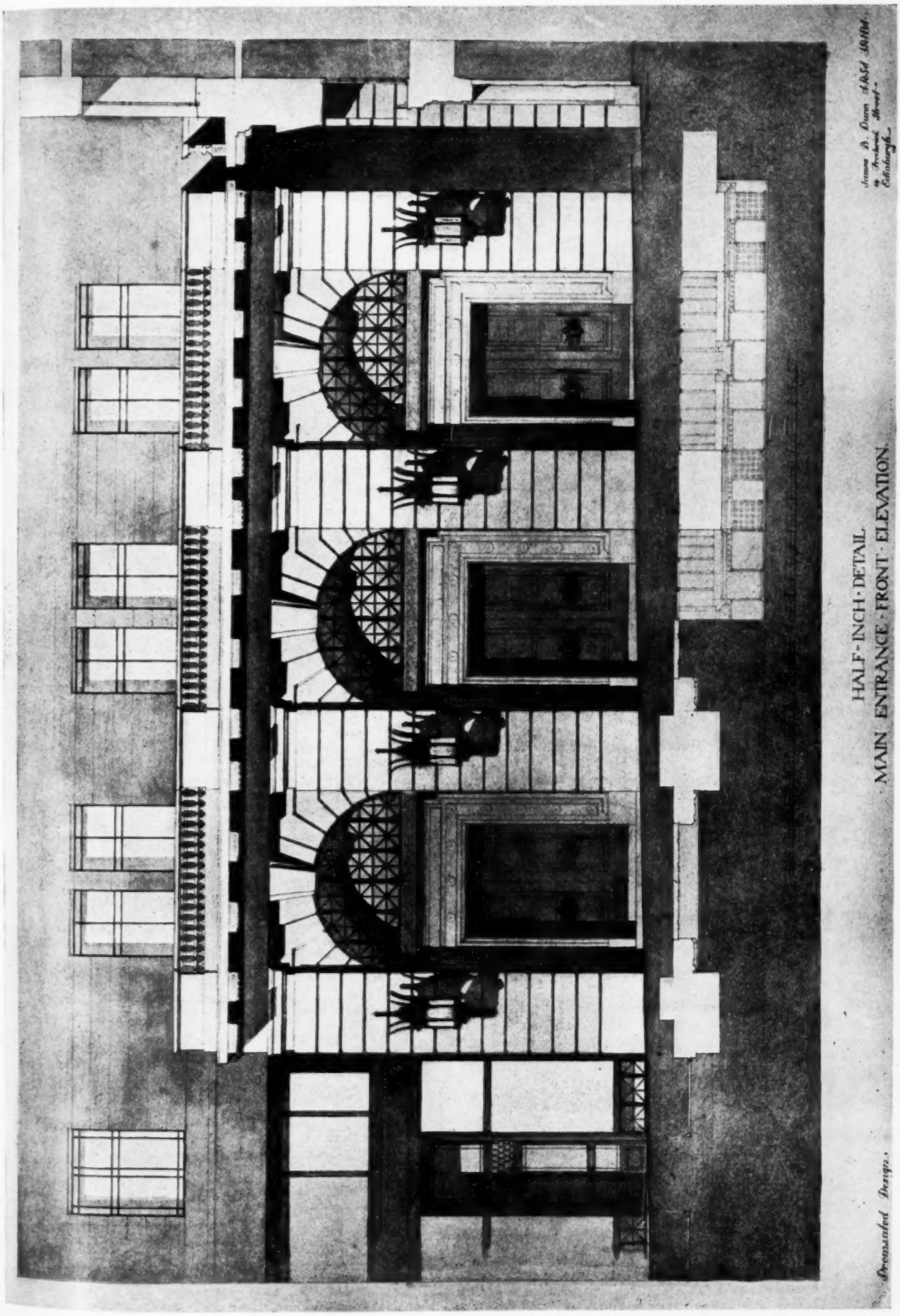
A House in Hamilton Terrace, N.W.

MESSRS. T. P. BENNETT, F.R.I.B.A., & SON, Architects.

Mr. T. Harold Hughes, F.R.I.B.A., Architect.



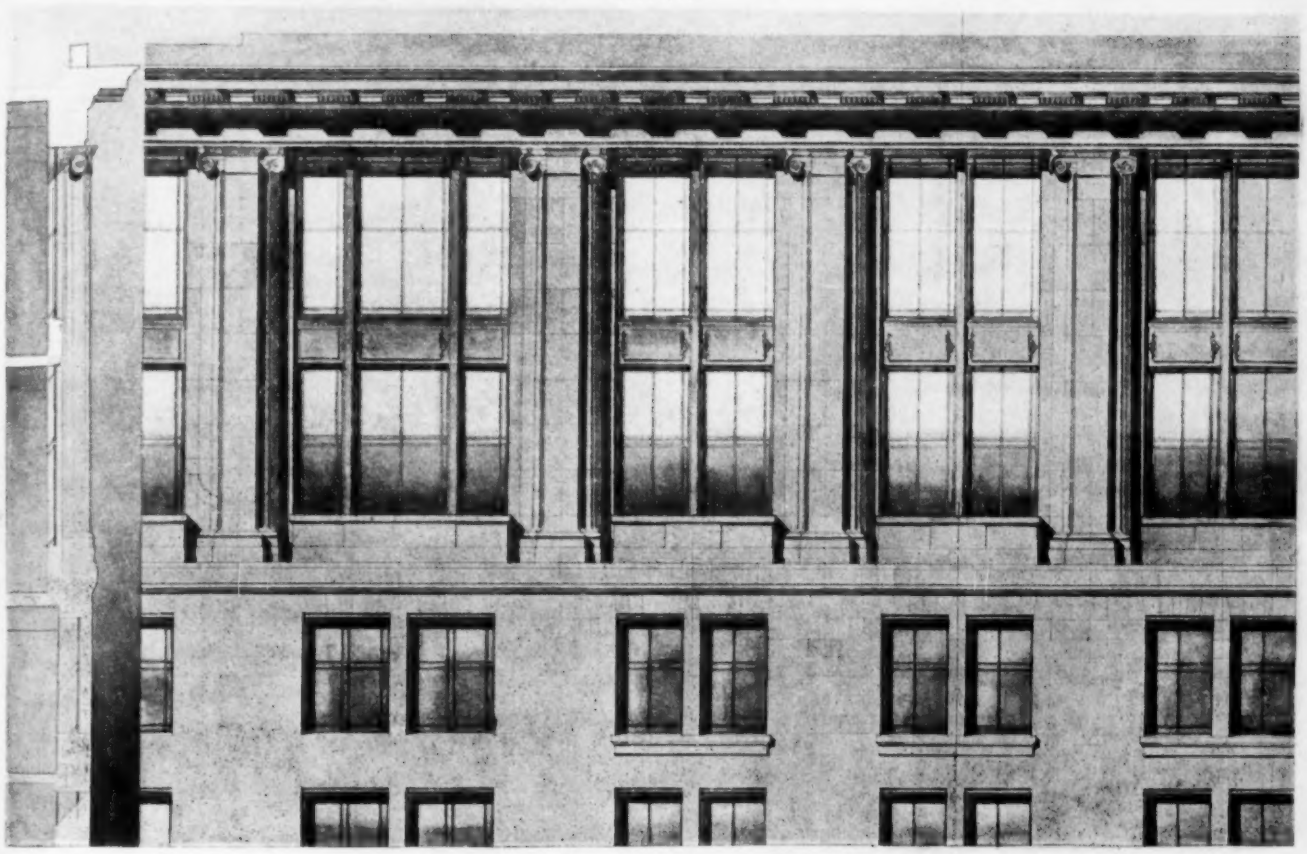
Competition for Scottish Legal Life Assurance Society's Premises, Bothwell Street, Glasgow: Perspective view of a Premiated Design.
By Mr. James B. Dunn, A.R.S.A., F.R.I.B.A.



Competition for Scottish Legal Life Assurance Society's Premises, Bothwell Street, Glasgow: A Premiated Design.

By Mr. James B. Dunn, A.R.S.A., F.R.I.B.A.

SCOTTISH · LEGAL · LIFE · ASSURANCE · SOCIETY
PROPOSED · NEW · BUILDING · BOTHWELL · STREET



HALF · INCH · DETAIL
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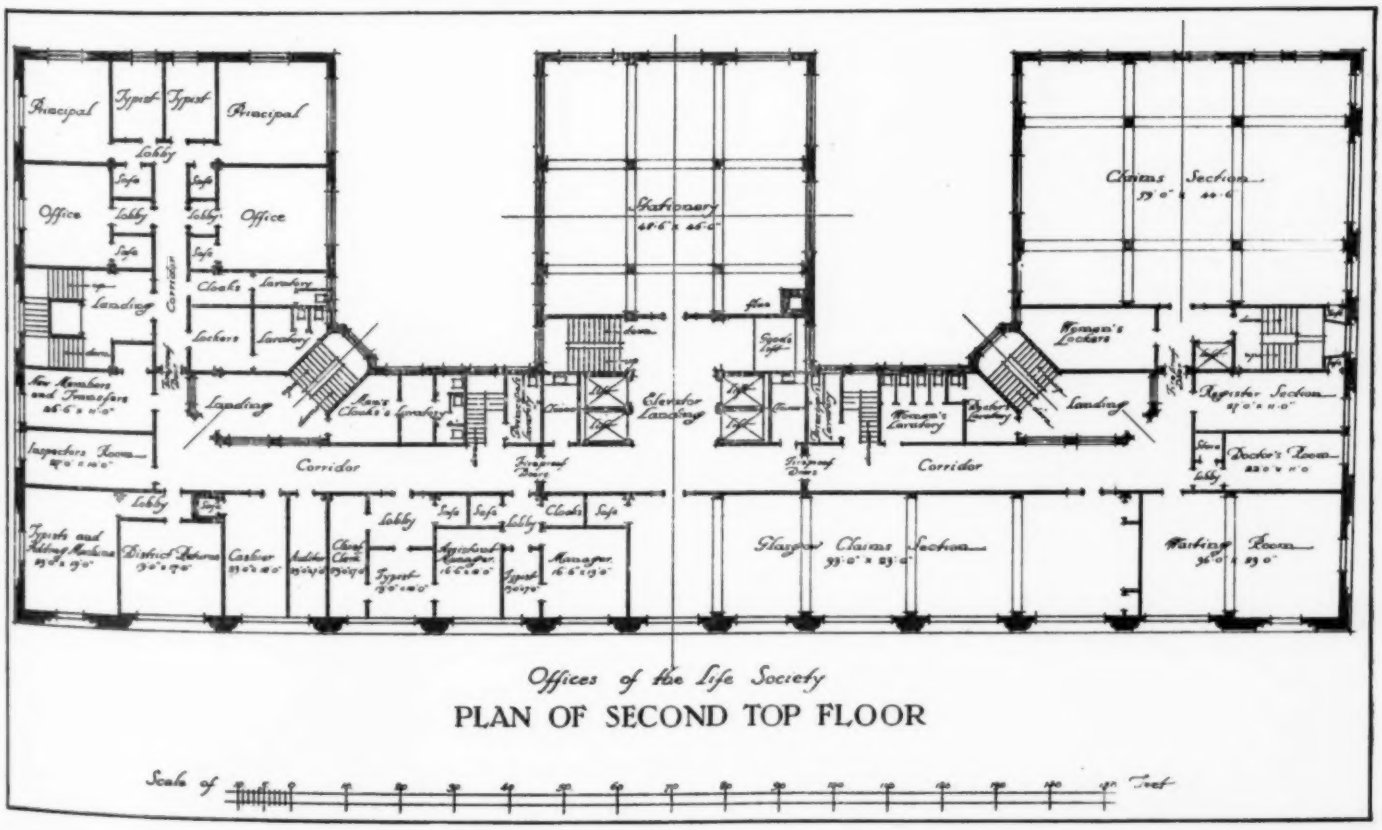


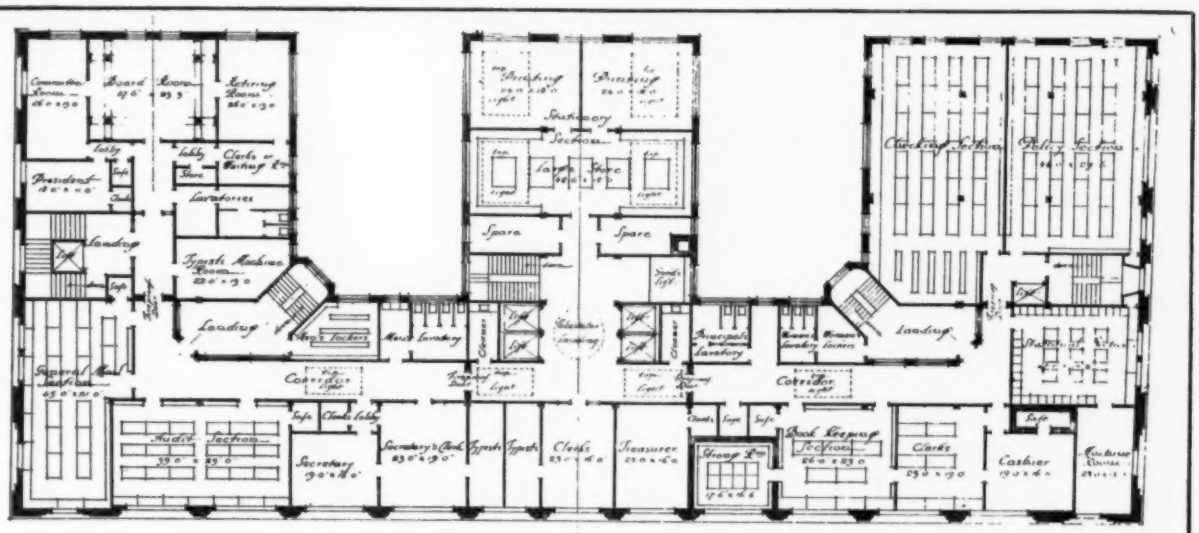
Offices of the Life Society

PLAN OF SECOND TOP FLOOR

Scale of ... Feet

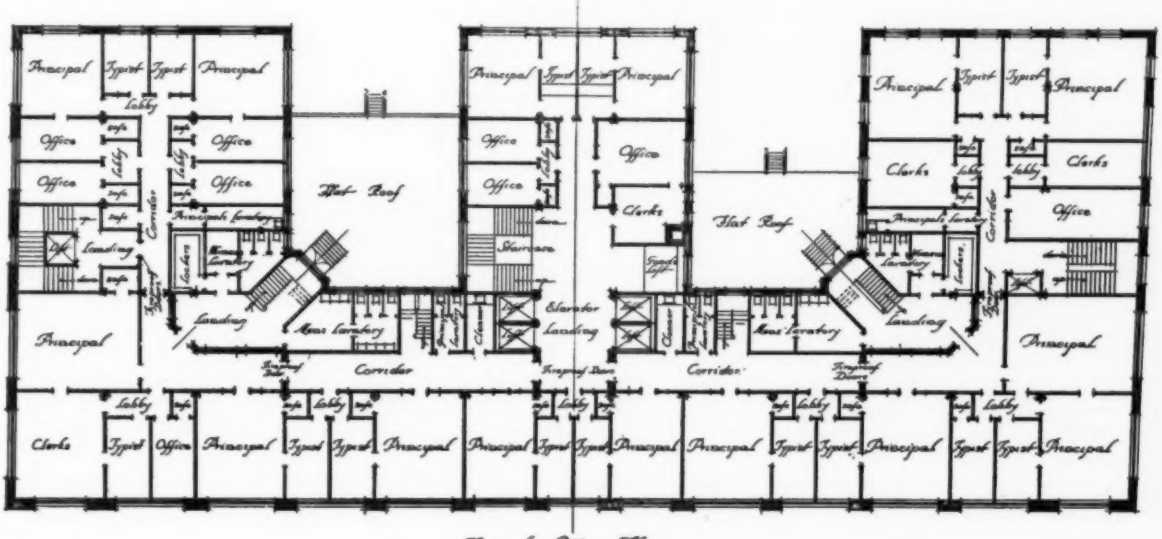
Competition for Scottish Legal Life Assurance Society's Premises, Bothwell Street, Glasgow: A Premiated Design.

By Mr. James B. Dunn, A.R.S.A., F.R.I.B.A.



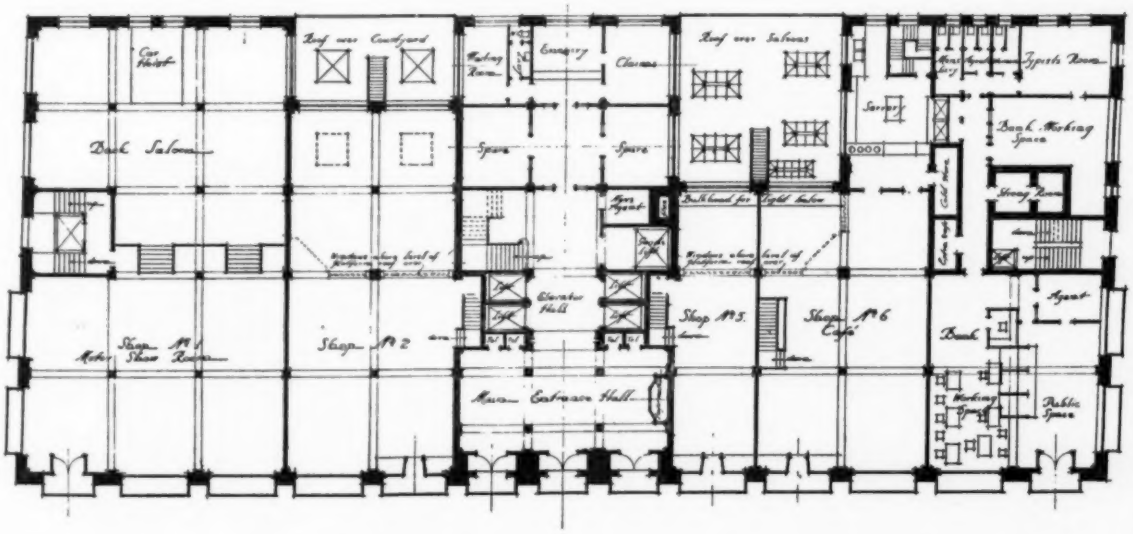
Offices of the Life Society

PLAN OF TOP FLOOR



Typical Office Floor

· PLAN OF FIRST FLOOR ·

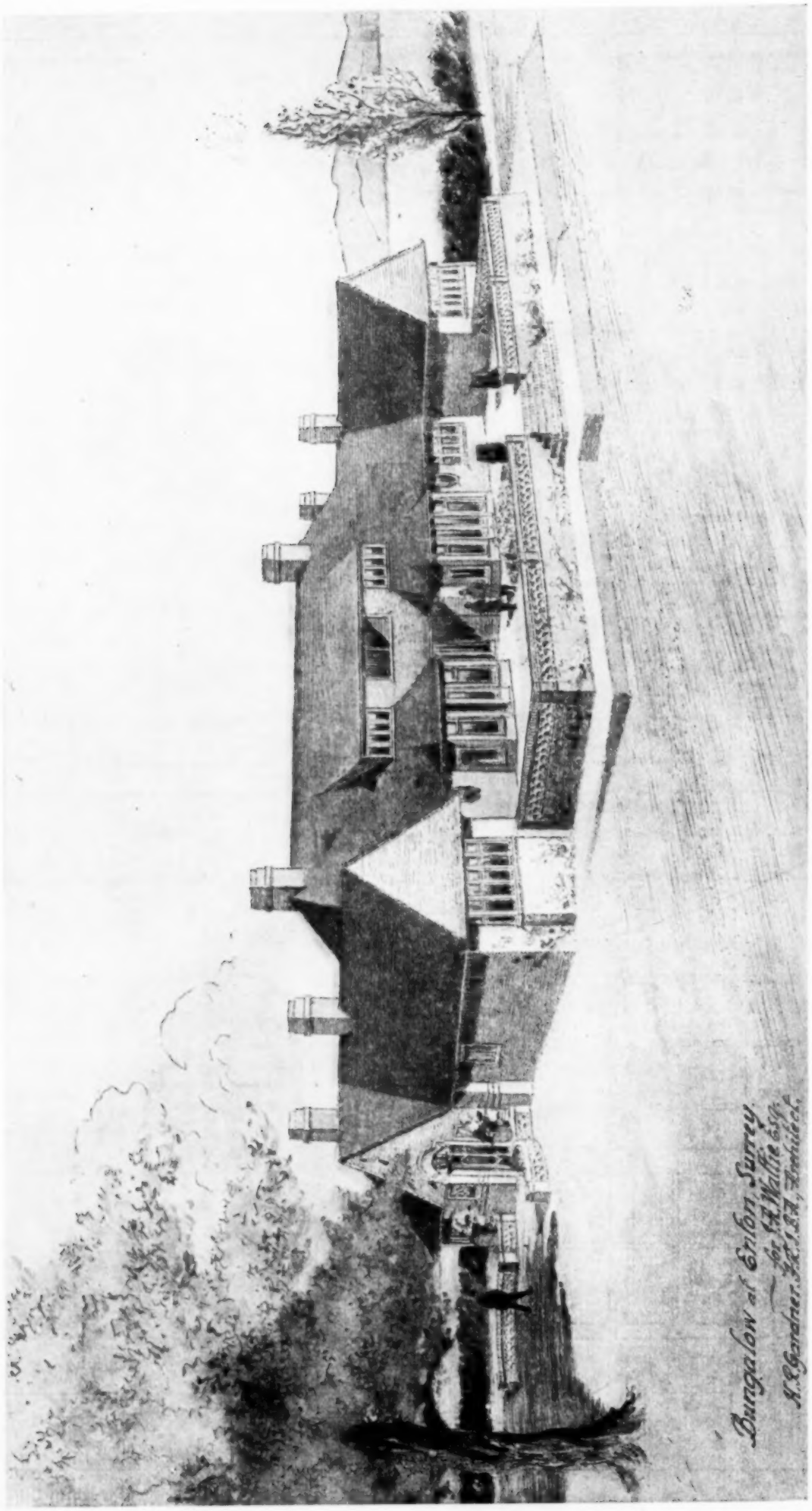


· PLAN OF GROUND FLOOR ·

Scale of Feet

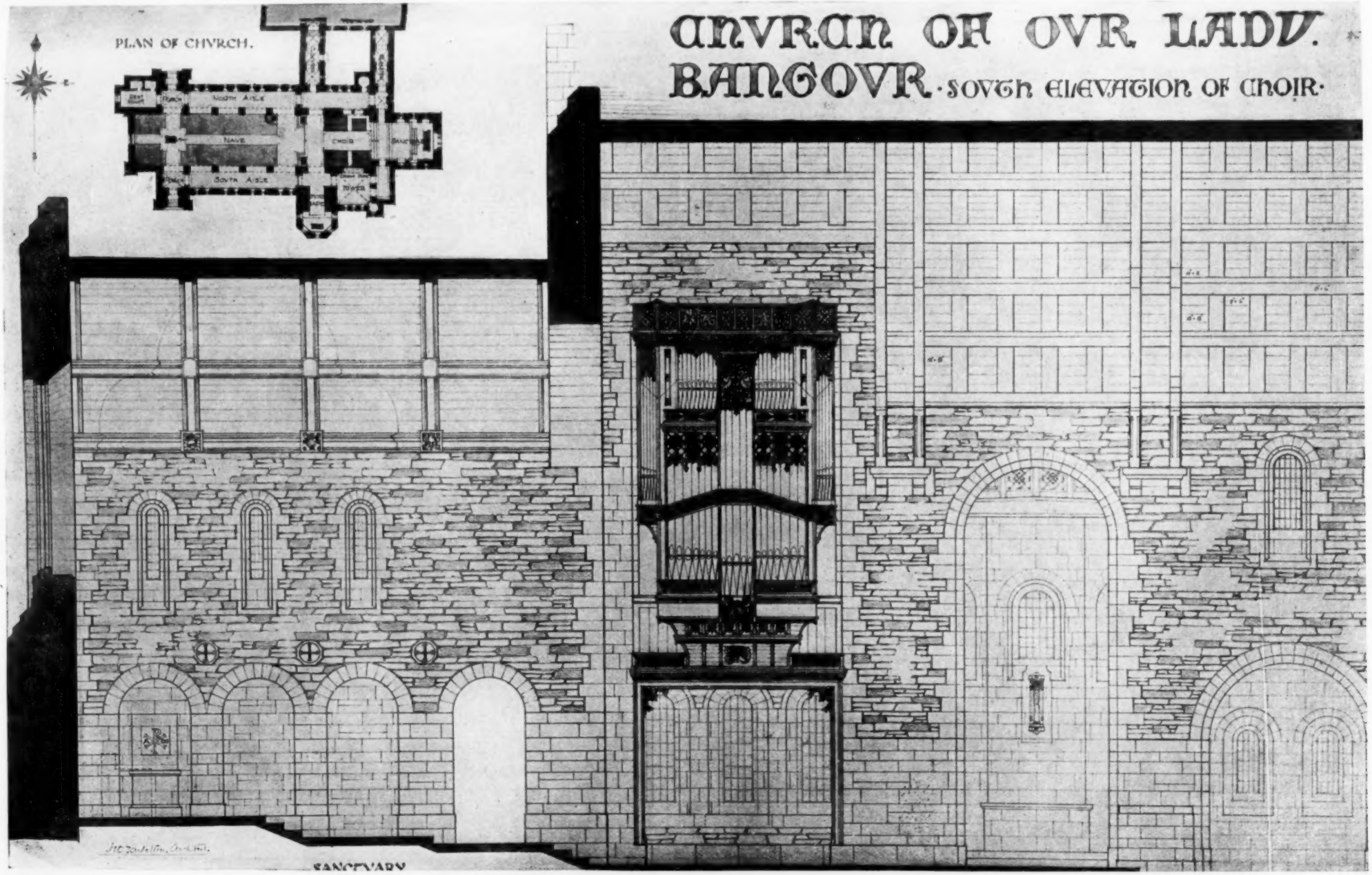
Competition for Scottish Legal Life Assurance Society's Premises, Bothwell Street, Glasgow : A Premiated Design.

By MR. JAMES B. DUNN, A.R.S.A., F.R.I.B.A.



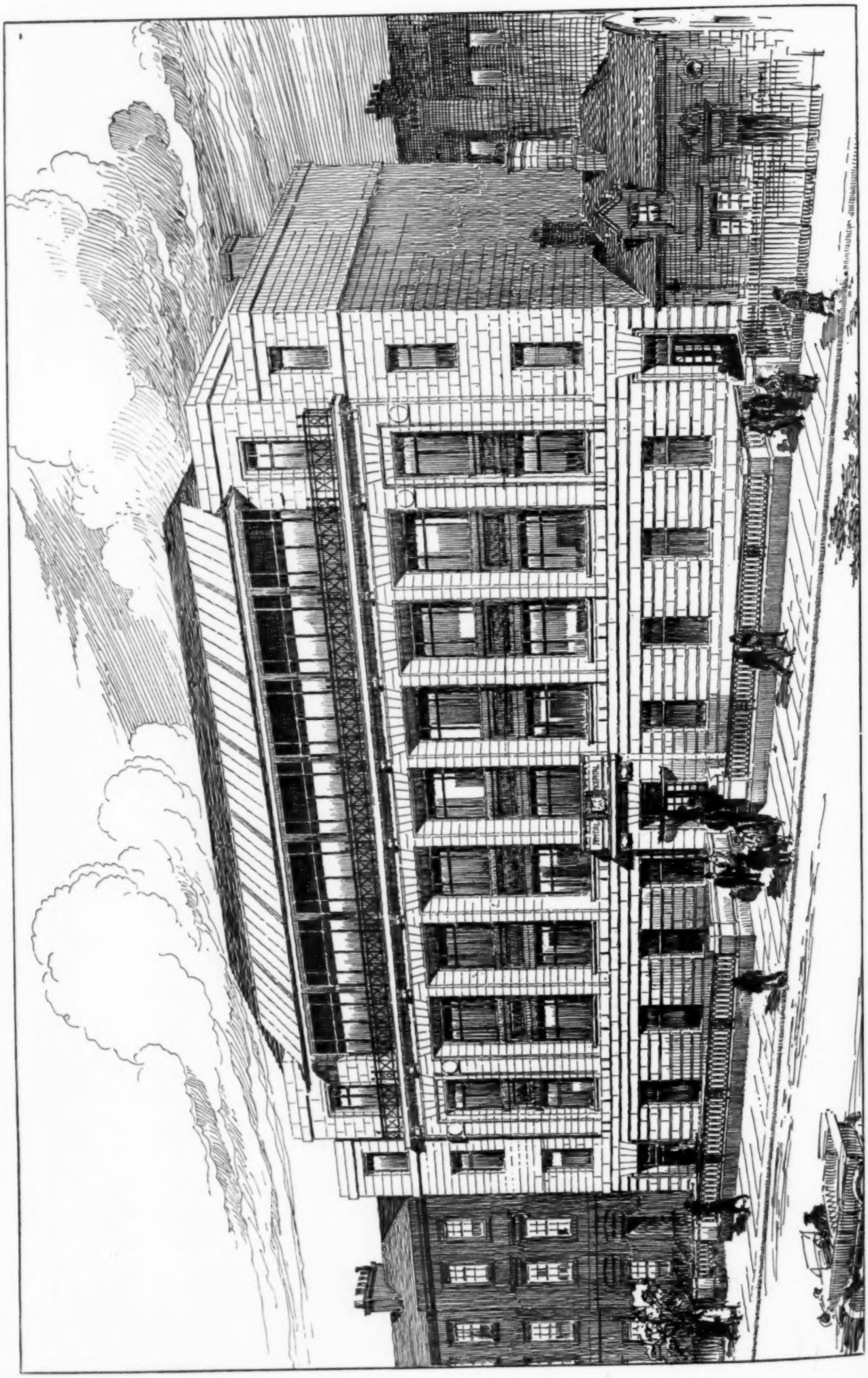
A Bungalow at Witley, Surrey.

MR. H. R. GARDNER, F.R.I.B.A., Architect.

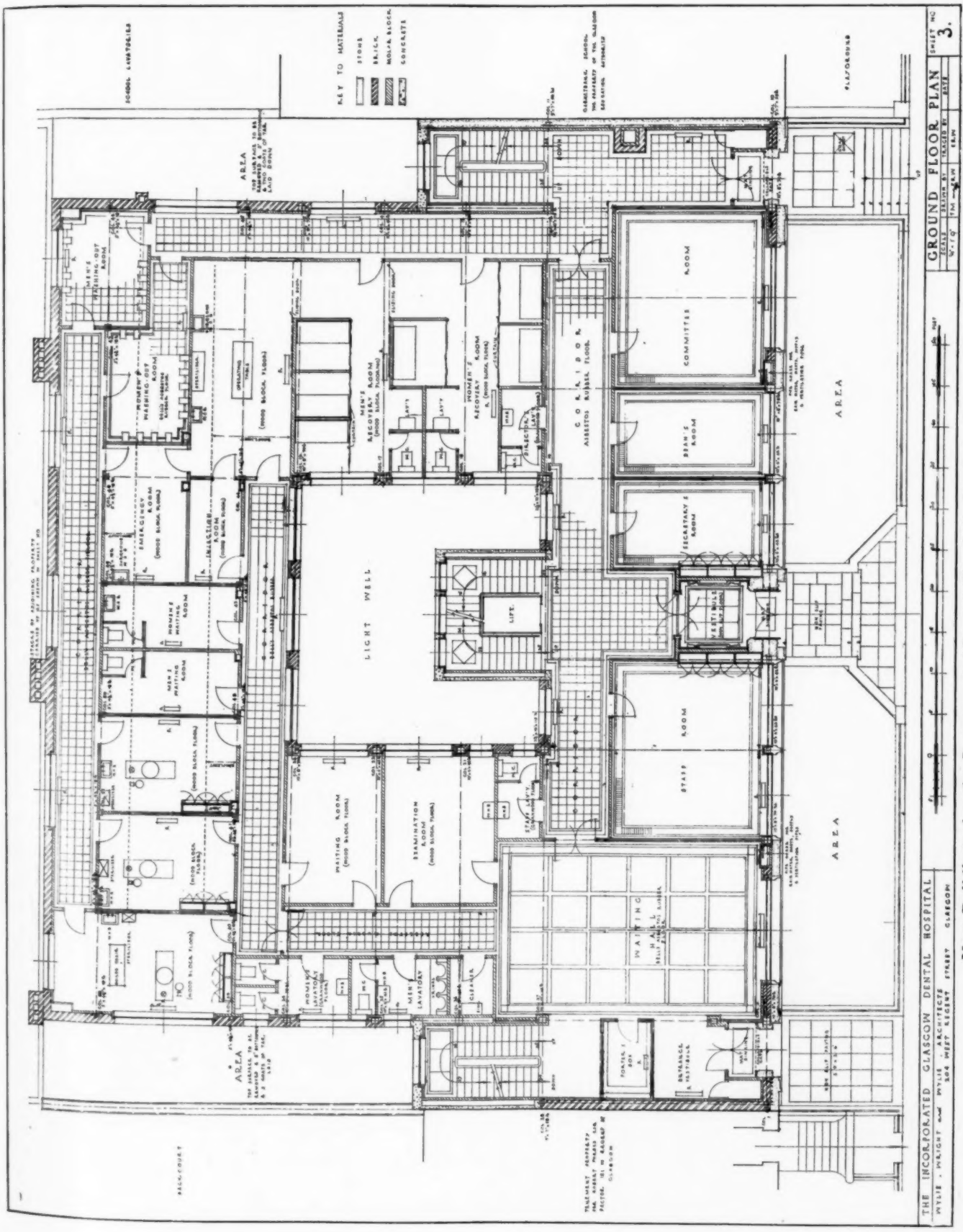


Church of Our Lady, Bangour: South Elevation of Choir.

MR. H. O. TARBOLTON, F.R.I.B.A., Architect.



New Buildings for the Incorporated Dental Hospital, Renfrew Street, Glasgow.
MESSRS. WYLIE, WATSON & WYLIE, Architects.



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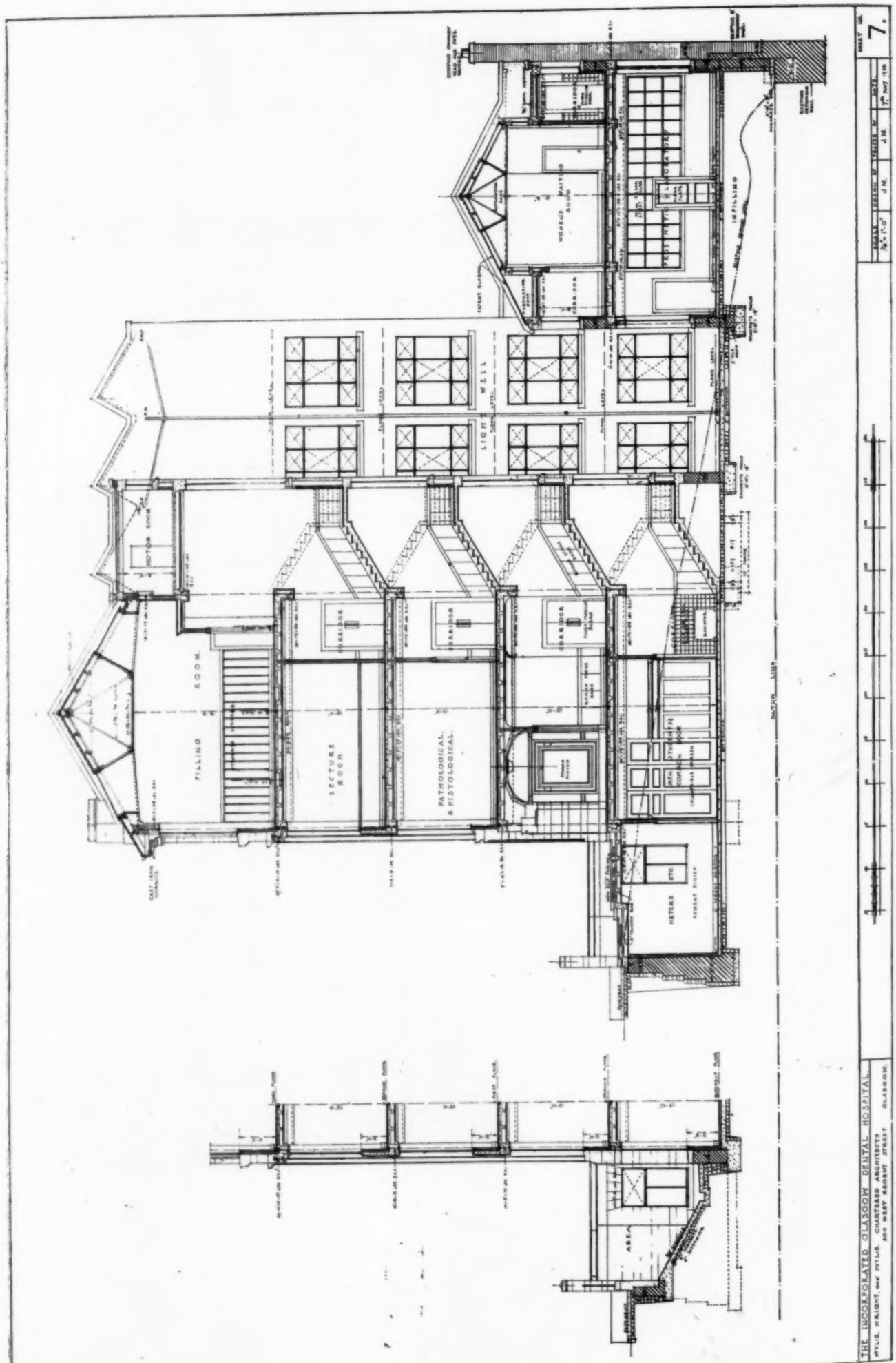

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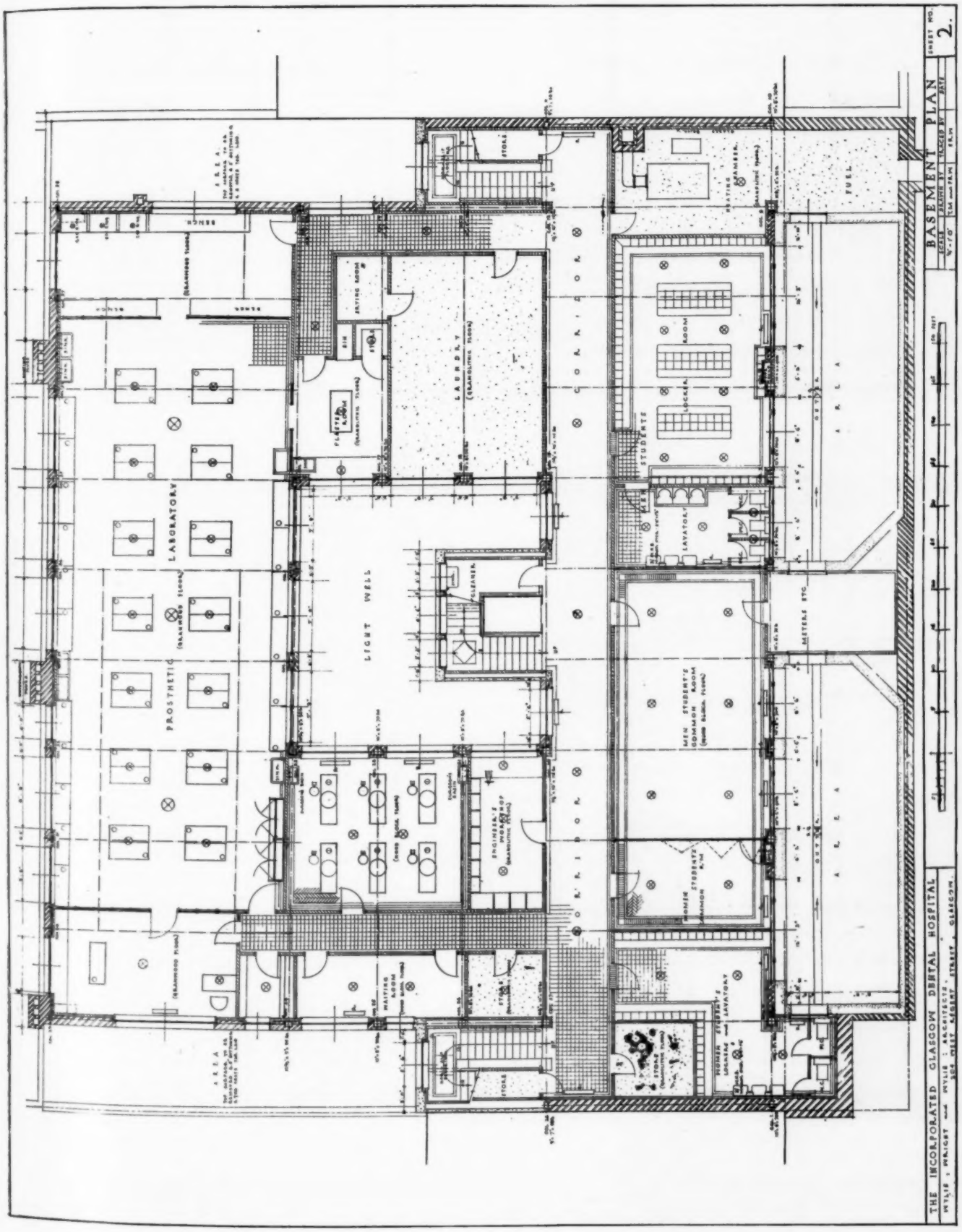

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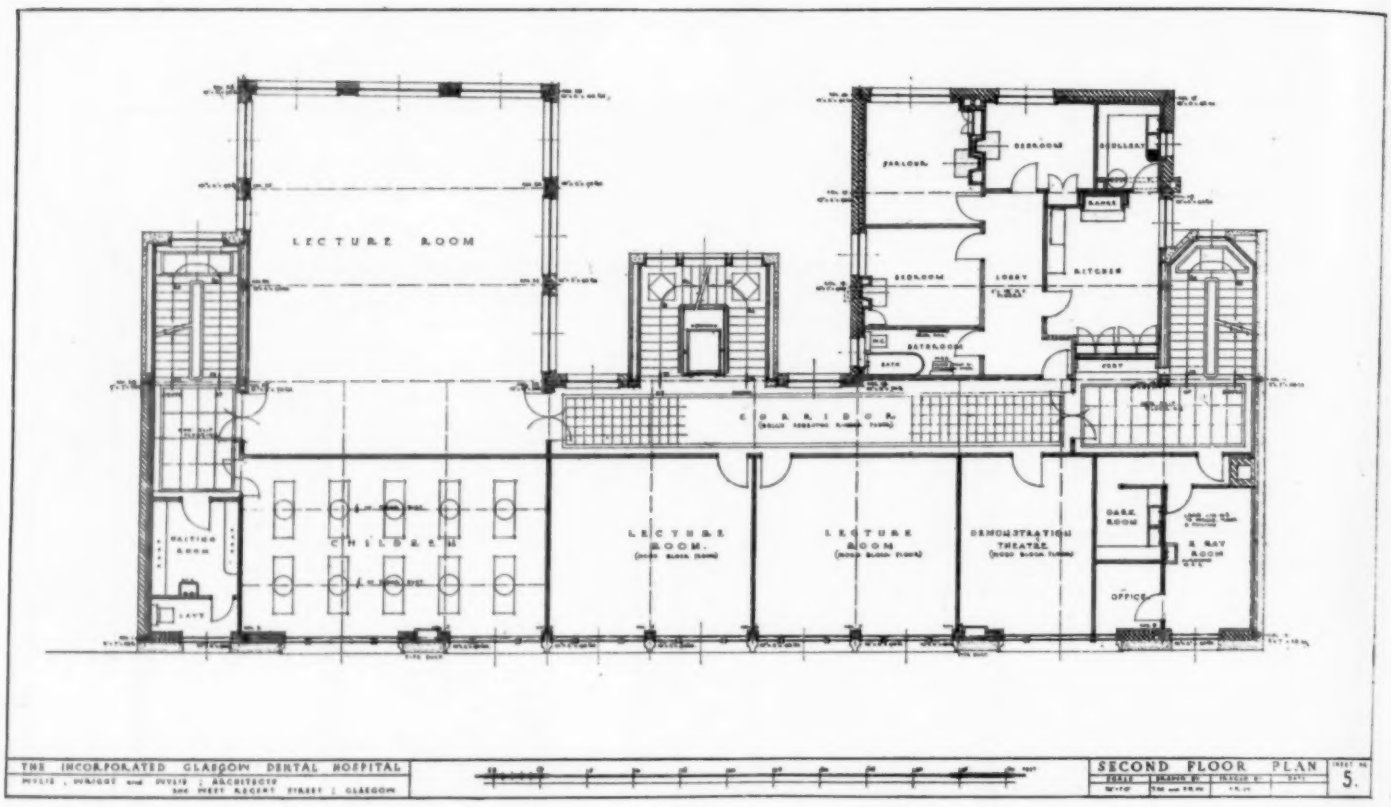

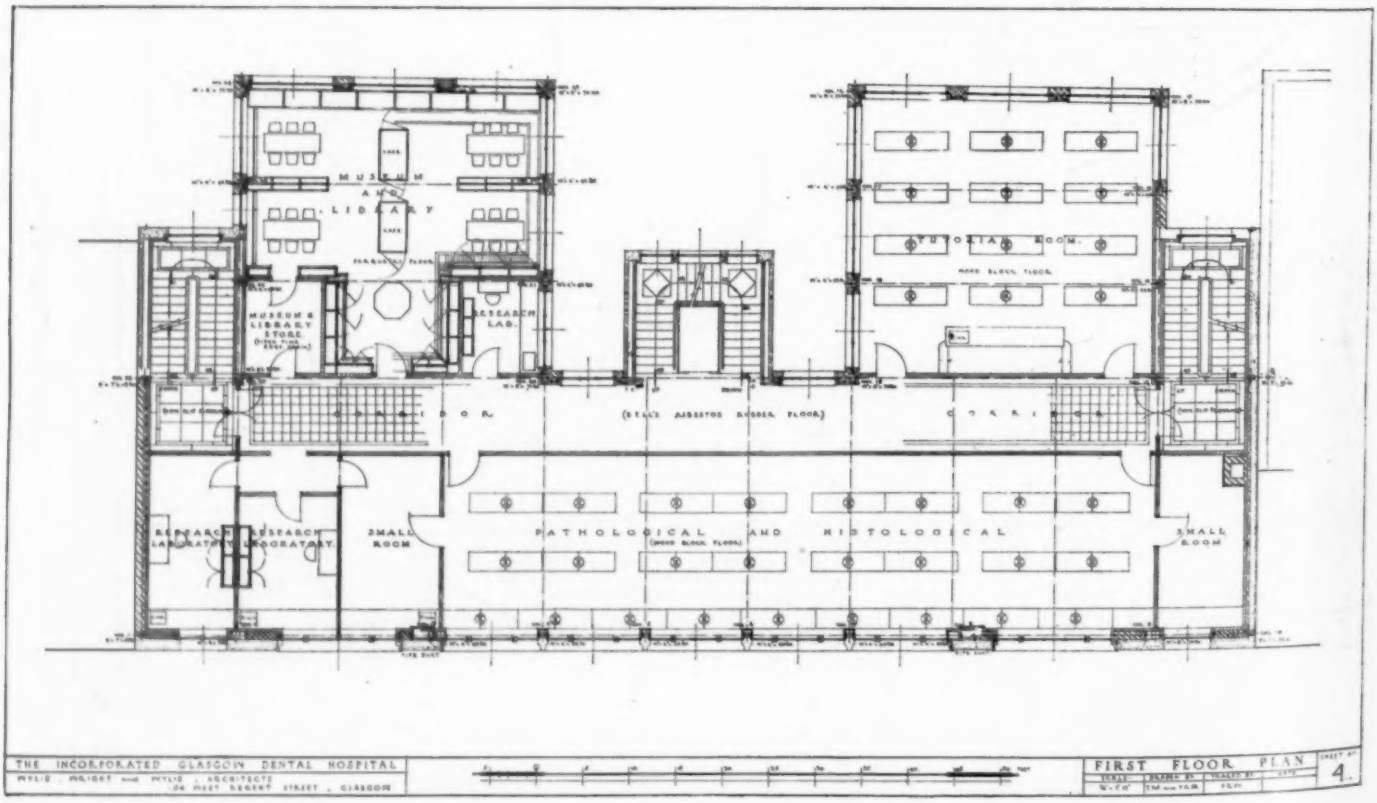

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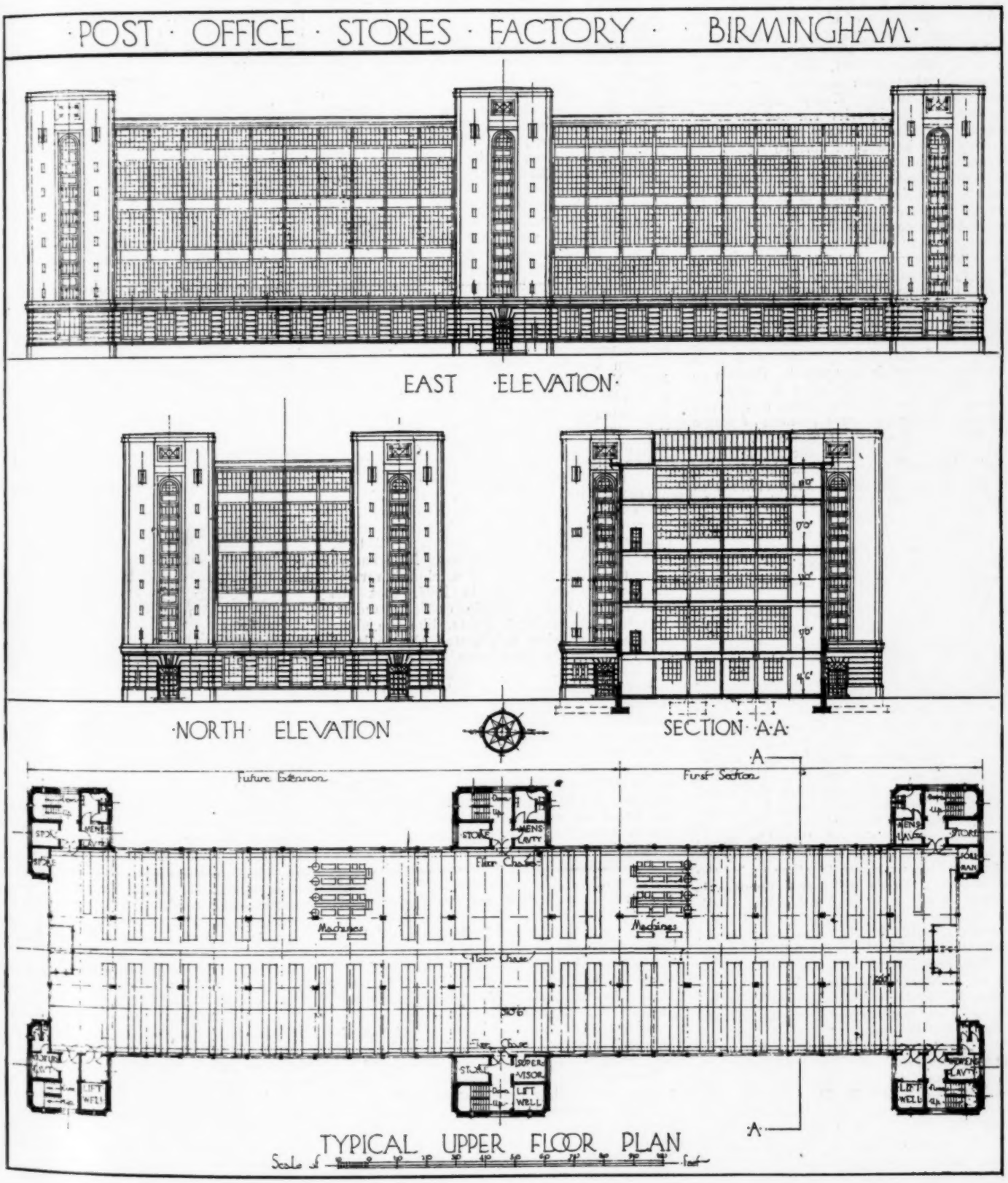


Post Office Stores Factory, Birmingham.

MR. FREDERICK A. LLEWELLYN (H.M. Office of Works) Architect.

ARCHITECTURE, NATURE AND MAGIC—VII

BY W. R. LETHABY.

RITES, AMULETS, PROPORTIONS.

"Rhythm, it may be said, is an echo of bare and barbaric fact in a forest clearing, and rhyme the chuckle of bones beaten in a savage dance" (Mr. Humbert Wolfe).

IN these notes I want to bring out the power and persistence of old ways of thought in the forms and appearances of the works of man. Art is more than shape and seeming; it is embodied soul, and can only be understood when seen against its psychological background. Every architectural "frontage" is an interior view of the mind which produced it. Not only building but all the other arts have been formed under the influence of the same great compelling forces Nature and Magic. In a recently published volume an American scholar (Professor F. C. Prescott) traces out the origins of literature in much the same way as I am attempting to discover the causes behind building phenomena. The origins of poetry were in that "shadowy phase of human thought which is called pre-logical." In Greek tragedy the plots were always primeval and religious. Dancing, acting, painting, sculpture, were all magical arts, and so, of course, was building. "There were dances to produce rain, rites to regulate the sun's movements, dramas to drive away winter and bring in summer. Festivals like the Olympic games and Greek dramas still contained some element of magic rite. So the first origin of dance and drama would seem to be in sympathetic participation with Nature" (Lynn Thorndyke, *History of Civilisation*). Music has been claimed to be the most detached or "æsthetic" of the arts, "but music is said to have developed from incantation. . . . Savages are highly susceptible to music. For the ordinary savage continuous work is impossible unless it is accompanied by a rhythmic chant in unison with others."

In his "Dawn of Civilisation," Mosso has a chapter with the title "The Origin of Art in Religion," and observes: "Art for Art's sake is a sterile formula." In his thoughtful book on the Origins of Art, Yrjo Hirn writes: "To how great an extent works of art derive their material form from magical practices may be shown in all departments of art. . . . There is practically no limit to the effects primitive man claims to produce by magical imitation. He draws rain from heaven. He regulates the movements of the sun and encourages it in sun-rituals." Again, Capart says that discoveries of prehistoric art "enable us to establish the utilitarian origin of the manifestations which we group together under the name æsthetic. This utilitarian purpose is in almost every case confused with a religious or rather with a magical purpose." Alessandro della Seta's important book, "Religion and Art," is in full agreement with these results: one chapter is entitled "Art an Instrument of Magic."

Games and contests were part of the annual celebrations at many great temples, as, for example, at Ephesus. "Games were a feature of seasonal no less than of funeral feasts" (Chambers' *Mediæval Stage*).

In an essay on "The Origin of the Olympic Games," Mr. F. M. Cornford concludes that they were a New Year's festival.

"We have evidence" (I am quoting from Mr. F. M. Cornford in Miss Jane Harrison's *Themis*, where the authorities are cited) "that the chariot races of the Roman circus were associated with the courses of the heavenly bodies. The Roman Circuses represented the change of seasons and the courses of the Sun and Moon. The Circus Maximus contained altars of the planet gods. Below the pyramid of the Sun stood altars of the Moon, Mercury and Venus; above it, altars of Saturn, Jupiter and Mars. So at Olympia itself, the twelve rounds of the chariot race may well have represented the course of the Sun through the twelve signs. In the hippodrome the pillar which marked the starting-point had beside it an altar of the Heavenly Twins (Pindar). At the starting-point of the foot-races in the stadium stood the tomb of Endymion" (p. 228). Solomon is said to have held twelve horse-races in his Hippodrome every year (p. 242).

During the festival of Apollo at Delphi a pole wreathed with vegetation was carried which was surmounted by a globe with smaller ones suspended from it; midway on the pole was another ball. "By the topmost globe they mean the sun; the globe beneath is the moon; the smaller globes are the stars and constellations, and the fillets are the course of the year, 365 in number."

The Chinese New Year festivals still continue the ritual of the seasons. In a telegram of February 27 this year we were told from Peking: "Before dawn this morning the Government proceeded to the Confucian Temple to perform the Spring Worship of the great sage. The generalissimo kow-towed nine times and the other ministers prostrated themselves. Music, stated to be as rendered 2,000 years ago, was played." A private letter received from China about seven years ago says: "Monday was the Dragon Festival, which ends the Chinese New Year fortnight. At night there was a wonderful lantern procession with marvellous paper lanterns of every shape and colour—flowers, birds, fish, animals. We saw two dragons fully fifteen feet long."

The Flower Dance at Helston, in Cornwall, is an ancient Spring festival.

These rituals of the seasons and the heavens are close to the nature of things and common ways of thought. The anniversary commemoration is a very ancient institution, and it is impossible to get away from nature imagery. We are told of a church service at Westminster Abbey, in 1307, that the monks and all the people carried candles, "so that the radiant lights, like the glory of the starry sky, exhilarated the souls of the beholders in joyousness."

. . . . . .

Sacred buildings—in ancient times the only structures of importance—were the scenes of great ritual dramas, and they were themselves of a magical character. Building to us is an art of necessity, but how far ancient magical considerations expanded our ideas of necessity we shall never know. If it had not been for the incitements by magic, what we know as architecture would be quite different from what it is in fact.

Building procedure itself was a magic with many rites, from the ceremonial marking out of an auspicious site, and laying the foundation at the right time with due sacrifice, to the consecration at the end.

All the ceremonies of building would have been scrupulously observed, for not only sacredness, but permanence, depended on them. "This his pyramid shall flourish, and this his building shall flourish, unto all eternity" (Pyramid text of Pepi II.).

By correspondence with the world sacredness and security were acquired, and the practices of sacrifice and ritual were developed.

The influence of ideas of the world structure on the building art was not only an inevitable reaction, but there was magic in it. Both an imitation and a symbol partake of the qualities of the original object or power. The primitive paintings of the cave men represent for the most part animals of the chase, and they appear to have been done for the magical purpose of promoting their increase (Fig. 1). "This same custom is found among living tribes of low civilisation" (A. della Seta). In later days a statue was what still a doll is to a child. Everything made was a creation, and had a sort of life. A modern ship has a personal name, and is "she" to a sailor.

The following account of "the artistic ideas of the Egyptians" is condensed from the chapter with that title in Capart's volume on "Egyptian Art" (1923):—The Egyptians were in the habit of giving proper names to their temples, or even to parts of a building, such as a door. This leads us to believe that they considered the building as animated by a living spirit. Many of the doors in the temple of Karnak had names. The representations on the walls of temples and tombs had a religious and magical character. The majority of architectural monuments were dwellings inhabited by the spirits of the gods or of the dead: in these buildings the real host was the statue. Egyptian statues were imbued with a soul which had gained entry by means of magical formulæ, and the needs of a body of flesh were accorded to them. Egyptian statues were considered to be primarily living bodies animated by the spirit of a god or man. Such a conception would modify the artistic point of view profoundly; the sculptor strove to make of his model as exact a copy as possible with a religious or magical end in view. The word "art" was used of the function of the priest, who carried out the funerary rites. Might it not, therefore, be supposed that the Egyptians attributed to the exercise of the arts a mysterious virtue similar to that possessed by ritual formulæ? One of the words for sculptor is that for "smith"; another is "he who makes to live."

The carvings, paintings, and objects found in Egyptian tombs provided companionship, sustenance, and assistance for those who were buried. Thus the eighteen models of boats discovered in the tomb of Tutankhamen

FIG. 1.

were for his magical service on the waters of the other world. Models of boats have also been found in the more ancient tombs at Ur.

. . . . . .

Buildings in being had to be protected from evil influences, and the provision of prophylactic or apotropaic images and symbols was a very important matter, which had impressive reactions on the development of architecture. Such protective symbols were building amulets. "Amulets were worn to protect the human body, either living or dead, from baleful influences and from the attacks of visible and invisible foes. The word 'amulet' is derived from the Arabic, and means 'that which is worn,' but it has been applied to any talisman or ornament to which supernatural powers are ascribed" (*British Museum Egyptian Guide*).

Of the large collection of smaller figures of Egyptian gods in the British Museum, we are told: "The plainer and coarser figures were buried under the doors or corners of houses, and at the boundaries of fields and estates, in order to turn aside the attacks of evil influences and spirits, and hostile foreign gods." In Mesopotamia magic powers were even more fully depended on, according to Maspero; magic exorcism was the only treatment for disease.

"Amulets are placed on every side, in every corner of the house; they are intended to protect the inhabitants from the evil eye and evil spirits. The Assyrians believe that the world is full of demons eternally occupied in laying snares for men. They are rarely, if ever, seen, yet they are continually felt in the air, upon earth, at the bottom of the waters; they are as numerous as the

motes of dust. They cannot be warded off except by incantation and talismans. The surest method of getting rid of them is to place in a prominent position a statuette which represents them; then an incantation recited or graven upon this portrait keeps them at a distance. Figures of one of the most formidable demons, the South-West Wind, which dries up harvests and consumes men with fever, of every size and material, are hung above all doors. . . . He is so ugly that the mere sight of his own image drives him away. Other images are burned beneath the threshold, so as to bar the entrance. Many of them are the gods—Bel, wearing his tiara and horns; Nergal, with his lion's muzzle; Nebo, etc. A divine army is needed to combat the evil spirits. They are the creation of Hell, the great worms which Heaven has let loose on earth, the terrible ones. They pass from house to house, for the door cannot shut them out; they glide like serpents beneath, and creep through the joints like a puff of wind! The gods charged to repulse them have each their special post. Nergal is on the top of the wall and beneath the threshold; Hea and Merodach are in the passage; Narondi is in the earth near the bed. Food and cups of liquid are offered to these guardians. 'Oh, you, the sublime ones, children of Hea, eat and drink well, so that ye may keep watch that no evil may penetrate amongst us.'"

Again, Maspero describes the building of a new Assyrian city, thus:—

"The foundation of a city is a religious act, and each detail in the arrangements is marked by long and complicated rites. If the founder wishes that his work should last and prosper, he must draw within its walls not only a human population, but a divine one too. . . . The city erected upon a regular plan was to form an almost perfect square. The angles exactly corresponded with the four points of heaven. . . . To sanctify this structure, and to avert evil influences, figurenes in baked clay, representing the great gods of the country, cylinders covered with inscriptions, and amulets of various forms were placed in different parts of it, particularly in the openings reserved for the gateways. The bricks destined for the public buildings are holy, and can be made only at certain seasons, and they are prepared under the auspices of a god, Sivan, Lord of Foundations, and only during the month to which he gave his name. The King came. An altar had been erected; he poured a libation, and prayed that Sivan and his father, Bel, the Architect of the Universe, would direct the works."

Representations of great heroes and powerful animals frightened away evil spirits. The colossal winged bulls and lions of Babylonian buildings were guardians of gates (Fig. 2). Lions and lions' heads were used

FIG. 2.

from the most ancient epochs of art for the guarding of buildings.

In the description of an early Mesopotamian temple, c. 2700, quoted in the second section, we are told that "the doors were guarded by statues of heroes and monsters." The reference appears to be to representations of the great hero Gilgamesh slaying a lion, a subject that had protective value for at least two thousand years. It occurs on early seal-stones, and is found on the Lion Tomb, from Lycia, in the British Museum.

Another "subject" with a similar purpose is the remarkable bronze relief of a flying eagle grasping two deer, recently brought to the British Museum from Ur, and very properly set over a doorway. A similar group appears in a very small version, on one of the objects found in last season's excavations. In the Museum are also several large lions' heads, brought from Ur, dating from before 3000 B.C., which were evidently guardians. They were beaten up out of thin copper backed with bitumen, and have staring eyes and pink tongues, inlaid in white and red stones. These heads are of similar type to those of the carved lions on a stone mace, also of early Sumerian art, c. 3000 B.C., in the British Museum (Fig. 3). Compare also a carved stone vase, on which two lions attacking a bull are represented. All these lions were evidently images of protecting ferocity. The other side of magic appears in representations of domestic cattle, symbols of wealth and prosperity, which are also found in these very ancient sculptures.

Protective images of lions are found all over Asia from the land of the Hittites in

FIG. 3.

ancient times to modern China. They were well known in Egypt and Greece. One from Egypt, in the British Museum, reclining with crossed paws, is almost exactly like another, also in the Museum, from the Sacred Way of the temple of Miletus, in Ionia. The sculptures of the Lion's Gate, at Mycenae, must have been protective. At the Mausoleum, parts of about twenty carved lions have been found. In the new restoration at the Museum these have been disposed as door guardians, but I think it is more probable that one stood in each intercolumnar space.

A group of lions tearing a bull has been mentioned as occurring in early Sumerian art, c. 3000 B.C. It remained one of the great motives for architectural sculpture for thousands of years. It is found many times repeated on the staircase ramps of the old Persian Palace at Persepolis. Texier long ago illustrated the pediment over a tomb at Myra, in Asia Minor. "On the pediment is a relief of a combat between a lion and a bull, a symbolical group apparently borrowed from Asia, which occurs on many monuments of early times. The earliest I am acquainted with occurs on a Phœnician coin. At Aizani the same subject is to be seen on the frieze of the theatre, and at Colophon I dug up a similar group of archaic character." A lion which has seized an ox gives its name to the Lion Tomb, in the British Museum (Fig. 4). This same subject was distributed all over the Roman world, and such groups forming grave monuments are found in Britain. Later, again, they are found in mediæval Lombardic sculptures, usually at doorways, as if some memory of their protective function still survived.

The wonderful "architecture" of Greece, which seems to us so æsthetic and chaste, was full of magic survivals in even the culminating period of the Parthenon. Pedi-

FIG. 4.

mental sculpture itself originated in protective magic; so did the watching lions' heads at the four corners, the great acroteria, and the palmette (really lotus) antefixæ along the eaves. The Parthenon was an enlarged later edition of archaic temples, which preceded it on the Acropolis. The Hecatompedon, built in the sixth century, had a decidedly barbaric and magic character. One pediment had a great sculpture of a bull overthrown by two lions. At the four lower angles of the pediments were watching lions' heads similar to those of the later Parthenon. At the apex of each pediment was the grim figure of a winged gorgon. "According to ancient Greek ideas, a terror-inspiring figure of this kind served to guard the sanctuaries from evil spirits." Another Doric temple of about the same date, on the island of Corfu, had the pediment "decorated"—as we say—with a great and grotesque figure of a gorgon between two big lions—the whole a very terror-striking performance. Within the last ten years a large collection of early terra-cotta casings of a temple at Syracuse have been found, dating from the seventh and sixth centuries B.C. The most important of these was the figure of a gorgon. Again, the largest and most ancient of the temples at Selinus (c. 580 B.C.) had a large gorgon's mask, over eight feet high, in the centre of one of the pediments. A golden shield with a relief and a gorgon was set up on the front of the temple in Olympia, c. 457. There was a gorgon's head in the centre of the west front of the Parthenon, on the ægis of Athena.

The gorgon was probably the most potent and widely-distributed charm against evil known to the ancient world. This affrighting image originated in the East, probably in Asia Minor, about 1000-600 B.C., in a grafting of Hittite and Egyptian motives on figures of the old Earth Mother (*Zeus*, Vol. II, see also Daremberg and Saglio). The gorgon was much used in Etruscan terra-cotta roof casings—bad influences must have had a way of entering at the eaves of a roof. Several examples are in the British Museum. It passed into Roman architecture, and the great head in the centre of the pediment of the little Roman temple at Bath is an excellent example.

Several gates which exist in Etruscan town walls have gorgons' heads on their keystones. We may not doubt that the fierce-looking heads carved on keystones in Renaissance architecture and re-hashed up by gifted designers in style whim-works, had their origin in magic. The magic of various creatures, objects and forms might be set out at much greater length. Syrens, sphinxes, griffins, and snakes were all guardian creatures. Fig 5 is an Egyptian sphinx and Fig. 6 an Assyrian griffin.

Pausanias tells that griffins guarded gold in the north. "The griffins are described as animals with the bodies of lions and the heads of eagles. Three golden griffins were found by Schliemann in the prehistoric graves of Mycenæ. The conception of the griffin was perhaps borrowed by the Greeks from the Semetic East; the name is identical with the Hebrew 'Cherub.' The cherub was a winged animal." (Frazer's *Pausanias* Attica, page 319.) Pairs of watching griffins were found

painted in the palace at Knossos, and they were frequently sculptured on Greek temples and tombs.

Other important magic-architectural adjuncts of Cretan buildings were the curious

FIG. 5.

"Horns of Consecration," which were set in intercolumniation and on roofs. Sir Arthur Evans has lately found the remnants of such a feature which must have been nearly seven feet high and wide. Evidently it supplied some much-felt want, and was a sacred symbol conferring magic protection. Many years ago I was impressed by the likeness of these "horns" to the great branching acroteria of Greek temples, and I cannot doubt that these were in a line of descent from the horns, and had similar functions. The central acroterion of the Parthenon must have been even larger than the horns of Knossos.

In the late Hellenistic age shells were carved on the heads of niches and over doors. These appear to have had a protective power. Shells are a favourite element in the decoration of Roman lead coffins. There is reason to think that the mediæval cusped arch originated in the scalloped edges of the shells carved over doors and niches. We reach the conclusion that architectural "decorations" were originally building amulets having a protective function. They became more and more customary, but, even so, they retained something of magic—for a time.

In this paragraph I condense from an admirable chapter, entitled "Art and Religion," in the new volume, *Art in Greece*, in the History of Civilisation Series. In its beginnings, and for long centuries afterwards, art was everywhere the handmaiden of the supernatural. We see art always penetrated by magic: æsthetic needs yielded priority to the more urgent needs of magic. Greek art, no more than any other, escaped this bondage. At first images on tombs did not so much commemorate the dead as offer support to his soul. The people of Orchomenos, to deliver their land from the wandering spirit of Acteon, made a figure of him in bronze, and fastened it to the rock. Stones, statues, and stelæ are so many abodes for the soul of the departed. Living by the power of the image in the tomb, the dead is surrounded by servitors, who prepare his food and carry out his behests. Hence, those clay statuettes which are placed with religious intent. To defend oneself against the powers of evil, recourse was had to amulets and talismans of all kinds, statues, reliefs, paintings, prophylactic images, such as the eye, or hideous gorgons and grotesque creatures which would cause the adversary to laugh, and thus disarm him.

These beliefs in magic inspired many a myth. The statues carved by Daedalus walked. We should bear these beliefs in mind when we study Greek art. On one of the gates of Thasos (early fifth century) Heracles bends his bow against the enemy; but close by Dionysos turned towards the interior of the city brings prosperity. About the year 448 Pericles made Phidias erect on the Acropolis of Athens a statue of Athena armed. At that period this was not merely symbolical; it was a reality. "Doubtless these ideas became obscured in time, and the themes altered and developed. Maybe it was superstition which held back the coming of realism in portraiture. The typical creation of Greek architecture is not a civil but a religious building. Even vase paintings might have a talismanic value. The winners in dramatic or musical contests—which were cult acts—consecrated their prizes to the divinity. Thus art was for long only a form of cult. It was an act of faith, a prayer" (A. de Ridder and W. Deonna).

Similar ideas have been held in China to this day. "Of all Chinese superstitions, the one that has been most persistent is the famous Wind and Water superstition (*feng shui*). According to which good or evil fortunes are determined by various physical aspects and conditions. The shapes of hills, presence or absence of water, position of trees, height of buildings, and so forth, are matters of deep consideration. Professors of the geomantic art are called in to select positions suitable for houses and graves. . . . Houses in a Chinese street are never built of uniform height, now and again one house must be a little higher or lower than its neighbour or calamity will ensue. It is impossible to walk straight into ordinary middle-class dwellings. Inside the front door will be a screen which forces the visitor to turn to the right or the left; the object being to exclude evil spirits, which can only move in straight lines" (Dr. Giles).

. . . . .

Ancient building procedure was associated with ritual practices to a degree which we cannot comprehend. Only a few ritual ceremonies remain to us, such as laying a foundation stone, the orientation of a church, and the christening of a ship. Building traditions in India and China bring out the importance and fullness of such ritual practices. In regard to India, a large ancient work exists which deals with the subject in un-understandable detail. This work, *The Mansara*, was summarised by Rám Ráz in an *Essay on the Art of the Hindus* (1834), and recently it has been more exhaustively dealt with by Mr. Prasanna Kumar Acharya. The work begins by a genealogy of artists: the heavenly architecture originated from Brama and three other beings, their sons were the progenitors of the four classes of terrestrial artists. Then follow sections on measures, selection of site, the gnomon and points of the compass, etc. A spirit of the site is said to occupy it prostrate with arms extended. "In laying a foundation, ritualistic prescriptions take a prominent part." One of the sections deals with the measures of columns and ceremonies in erecting them "essentially ritualistic." There were different classes of houses, "astrological and ritualistic considerations" appear in regard to these also. Ceremonies at entering into a new house are described. "The masters of ceremonies lead the procession in circumnambulating the village before the entry to the house. After worship and sacrifice, the guardian angel of the house is prayed to confer long life," etc. In a recent review of this work I find the following remarks:—

"The Hindu tradition of presenting æsthetic principles as religious precepts and of embedding scientific matter as astrological

FIG. 6.

formulas and mystic ritual is puzzling to a non-Hindu." (A Hindu might be puzzled in return to understand what is meant by "æsthetic"!) "Indian craftsmen of to-day still use the formulas of 1,500 years ago. *The Mansara* is, apart from its astrology, a craftsman's handbook. As always in India, art is a means to a definite end, never unrelated to life and worship. Mansâra means essence of measurement, and the practical part of the work consists of directions regarding selection of sites and the proportions of every kind of building and image. The treatise and Vitruvius are compared, and we can hardly doubt that the Indian treatise was influenced by the Roman architect."

In such thoughts regarding ritual rightness we find the source for our modern superstitions about "architectural proportions." These notions, still maintained in schools and anxiously considered in offices, are survivals from the ages of magic. In the ancient systems of proportion there were three main constituents: development by experiment and custom until a result could be recognised as a thing or type like a temple or pillar; an instinct to see in the shape and size thus obtained (and very rightly, too!) a mystery and sanctity by which it became a sort of being with a name; and finally, a tendency to define and regularise this thing, and in doing so to use round numbers in interrelated measures. Its very existence, or at least stability, depended on its ritual rightness. The day after I had written so far, I read, in Worringer's *Form in Gothic*, a sentence regarding the arts of primitive man which confirms the view I am expressing: "He seeks to stabilise in his perception those individual objects or impressions of the outer world which have a special meaning or value for him, and which are escaping him in the shifting turmoil of his unreliable visual impressions. Out of these, too, he attempts to create symbols of inevitableness . . . and reduces their varying modes of appearance to certain decisive and recurrent characteristics."

In seeking rightness and magic security, other results would have come in by the way. Ideas of accuracy and perfection of form were closely akin to magic; and fine workmanship would have been encouraged by the thought of correspondence with the universe. To ensure rightness it would have been necessary to be very exact—right and rite were very close together. Conformity with some ruling form and elimination of accident were very important. Along this way geometry and building must have acted and reacted on one another strongly.

Our problem in the present is not to cling to the detailed expression of the old magics, but to get back, or attain to, a sense of right and sanctity in what is to us reality and the nature of things.

(An excellent introduction to this enormous subject is Miss Jane Harrison's *Art and Ritual*: see also Santayana's *Reason and Art*.)

R.I.B.A. Statutory Examinations.

The R.I.B.A. statutory examinations for the office of district surveyor under the London Building Acts, or building surveyor under local authorities, will be held at the R.I.B.A., London, on October 17, 18, and 19, 1928. The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is October 1, 1928. Full particulars of the examinations and application forms can be obtained from the secretary, R.I.B.A.

Roman Discoveries at Caerleon.

A considerable quantity of Roman remains, it is stated, have been brought to light at Caerleon, near Newport, where stood what was for a time one of the most important Roman fortresses in Britain. The latest finds include look-out turrets, ramparts, a massive stone water tank, what were probably a centurion's quarters, and quarters that may have belonged to a legion commander. Long buildings have been unearthed, in each of which a hundred men appear to have been quartered under a centurion. A double row of column bases has been found which evidently belonged to a courtyard or covered hall of a basilican type.

"THE BUILDER" DEBATE—IX

IS THE ARCHITECTURAL PROFESSION OVERCROWDED?

SIR,—I gave "Positive" the opportunity of adding to this debate some information and facts which would have shown that a serious defence can be put up against my reasoned statement that the profession of architecture is overcrowded. That opportunity he ignores. Two paragraphs only are devoted to meeting but one of my array of facts; six paragraphs to the remedy of overcrowding, in which I am told that my remedy is to prevent further entrants and to organise a strike—subjects which I left severely alone.

This change of ground convinces me, as it will also convince other readers, that my arguments are sound. Even "Positive," in deserting his claim that there is no overcrowding for fresh fields, does so with words that leave no doubt about his conversion. Otherwise, why does he write: ". . . there is no doubt that what distress there may be in the profession is due more to bad management on the part of the profession itself and of the general public than of a preponderance of professional men over the needs of the profession"? Now, whether overcrowding is due to bad management or not, "Positive's" statement and what follows does not help in the slightest our debate, which was designed to prove one of two things—whether the architectural profession is or is not overcrowded. From his silence I can assume that "Positive" agrees that casual employment is, as I said, increasing, and that its spread reduces the number of skilled men, and that it is a corollary of overcrowded conditions in any trade or profession.

"Positive" and "his inner circle of professional friends" find it impossible to believe the educational reports published annually, every one of which shows that more and more youths, from the classes which have neither the money nor the social standing, both of which are necessary in ninety-nine cases out of a hundred to the making of the successful practitioner, are trained for, and do seek, careers in the architectural profession. "Positive" says that this profession is badly managed; that it is the victim of public indifference (I incline to full agreement with him). These two factors alone must make for overcrowding. Again, my case is not dependent on the necessity to refute his allegation that every highly skilled man is employed; our debate concerns the whole "architectural profession." I accept this no more than I could accept a claim that we are a nation of orators because we have a high standard of rhetoric in the House of Commons.

Sixty to seventy per cent. of the profession (I quote from official reports) is composed of assistants—assistants who will remain assistants. The conditions of employment among such men I gave in my previous reply, quoting at length from a report of the National Federation of Professional Workers. I also said that these assistants, on the average, did not earn as much as £5 a week. (When unemployment and sickness is added, this £5 is made to look a sorry figure.) Again, the Architects' and Surveyors' Approved Society for National Health Insurance, which only accepts men earning less than £5 a week, has, during the last few years, increased its membership threefold. Men only accept conditions of employment such as I have outlined because the profession can offer nothing better. What overcrowded profession could?

But what of the remaining 40 or 50 per cent. of architects in private practices? Again, I will not ask "Positive" or my readers to accept my words, but to turn to a leading article in a well-known weekly contemporary: "The fact must be faced that the bulk of architects (*i.e.* private practitioners) are dependent upon work that can scarcely be called remunerative." If so sweeping a statement can be made in times when, in "Positive's" own words, "over a million houses have been built . . . and whole streets . . . demolished and rebuilt" —made and passed unchallenged—what *is* the average income of practitioners? If the bulk of architects make a poor living and the assistant "is not only often ill-paid, but he has also a position which is insecure, and he is often compelled to lead a peripatetic existence, surely an unenviable lot," what other conclusion can be reached than that the economic basis and structure of the profession is unsound?

Why does "Positive" hasten to use ridicule as a weapon of debate? Why is he so ready to negative in advance any suggestion that the question of limiting the numbers coming in should be scrutinised? Because he knows, as every reader knows, that outside a small successful coterie architects find it difficult to earn an income which in these days would be considered a fair return for the study and training they undergo. If the highly skilled are in this plight, and "Positive" does not deny it, then the profession is indeed overcrowded. "NEGATIVE."

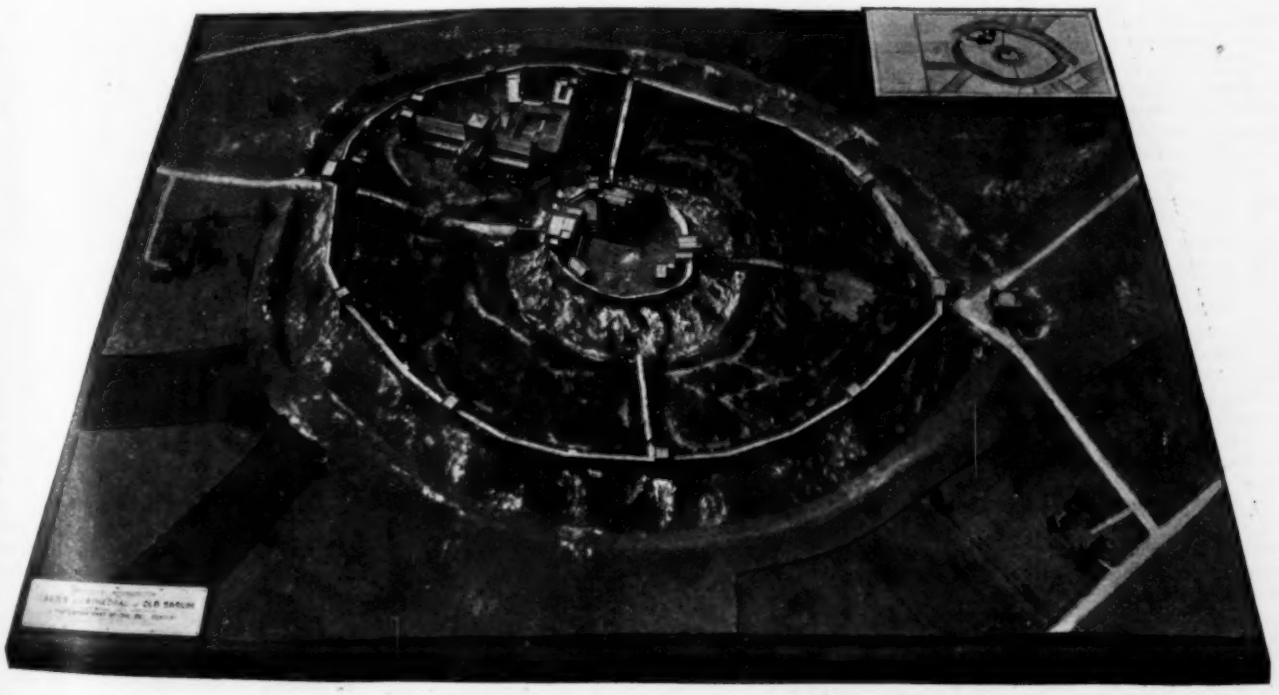
NEWS OF BOOKS.

Professor Allen W. Seaby, Head of the Art Department of Reading University, and author of a number of books on art, has long been preparing a brief review of the Nature of Art and its productions throughout the ages, designed on popular lines to commend the study to those interested in the subject, whose general education left it untouched. The series will consist of about six small, concise volumes, of which the first two will now be issued by Messrs. B. T. Batsford, Ltd.

The first volume is introductory, giving "A General View of Art, its Nature, Meaning, Principles and Appreciation." The second takes up the historical story with a view of "Art in Ancient Times (Prehistoric, Egyptian, Assyrian, etc.)" Professor Seaby has made journeys to the Near East to study the subject at first hand, and has fully illustrated his work with many specially drawn sketches as well as photographic plates.

A MODEL OF OLD SARUM

Apropos of Mr. H. V. Molesworth Roberts's article on "The Excavation of Old Sarum," published in our last issue, the accompanying illustration of a model of the site will be found of interest. This model is to a scale of 32 ft. to one inch, and was made by Mr. John B. Thorp from the drawings supplied by Mr. Frank Stevens, the curator of the Salisbury Museum, where the model is now housed. The houses and lay-out of the Outer Bailey are, of course, conjectural, but the principal buildings and wall have been worked on the foundations which have been discovered.



A Model of Old Sarum, by Mr. J. B. Thorp.

Executed to a scale of 32 ft. to one inch.

HOUSING AND TOWN PLANNING IN 1927-28

MINISTRY OF HEALTH REPORT.

THE ninth annual report of the Ministry of Health, dealing with the general house building situation, states :—During the year under review (1927-28) the total number of houses completed in England and Wales, excluding those built for rehousing purposes in connection with slum clearance schemes, amounted to the record figure of 238,914. The total numbers of houses completed in each of the last four years were as follows :—

1924-25	136,889
1925-26	173,426
1926-27	217,629
1927-28	238,914

The number of houses built since the Armistice is as follows :—

With State assistance ...	724,000
Without State assistance ...	381,000*
Total	1,105,000

Of the number of 381,000 houses built without State assistance, approximately 274,000 were of not more than £26 rateable value (or £35 in the Metropolitan Police District).

Local authorities proceeded very actively with their building schemes in the earlier half of the year 1927-8. Progress was facilitated by recovery from the effects of the industrial stoppage of 1926. Owing also to the announcement, at the end of 1926, of the reduction of the rates of Exchequer grant for houses completed after September 30, 1927, there was an acceleration in the completion before October 1 of houses on which work would ordinarily have extended later. This was followed by a quieter period, but for the year as a whole the number of State-aided houses completed reached the figure of 178,582, an increase of 24,803 on the year 1926-7. At the same time, the prices of houses included in local authorities' contracts have shown a remarkable drop since the announcement of the reduction in the rate of Exchequer grant. The average figures for a non-parlour and parlour house during the last quarter of 1926 were £448 and £513 respectively; whilst the corresponding figures for the quarter ended March 31, 1928, were £368 and £437.

The year shows a considerable increase in the number of houses built by local authorities, whilst the production of houses by private enterprise has maintained its level :—

—	Houses built by private enterprise		Houses built by Local Authorities with State assistance.	Total.
	With State assistance.	Without State assistance.		
1923-24	4,311	67,546	14,353	86,210
1924-25	47,045	69,220	20,624	136,889
1925-26	62,769	66,439	44,218	173,426
1926-27	79,686	63,850	74,093	217,629
1927-28	74,548	60,332	104,034	238,914

It will be seen that, of the 238,914 houses completed during the year, 178,582 were built with, and 60,332 without, State assistance.

General statistics are not available as to the numbers of houses erected in agricultural parishes. The Housing (Financial Provisions) Act, 1924, however, provided for an additional subsidy for houses, subject to the special conditions prescribed in the Act, built in such parishes. Up to March 31, 1928, 12,865 houses, subject to these special conditions, had been included in schemes submitted by 281 local authorities and authorised under that Act by the Minister for erection in agricultural parishes; and at that date 10,195 of these houses had been completed and 889 were under construction.

The Inter-Departmental Committee appointed in April, 1923, to survey the prices of building materials and to receive and consider complaints in respect thereof, continued the presentation of their periodical reports on the prices of building materials in various parts of the country. Prices generally have fallen during the year.

The following table shows the quarterly average prices of houses included in contracts let by, or in direct labour schemes of, local authorities during the last three years :—

Quarter ended—	Non-Parlour Houses. £	Parlour Houses. £
March, 1926	442	492
March, 1927	425	490
March, 1928	368	437

Payments of Exchequer Subsidy.

Since the War the total payments of Exchequer subsidy in respect of housing have been as follows :—

	£
Under the Housing, Town Planning, etc., Act, 1919	49,263,475
Under the Housing (Additional Powers) Act, 1919	9,493,155
Under the Housing, etc., Act, 1923	3,000,001
Under the Housing (Financial Provisions) Act, 1924	1,732,026
Demonstration Houses	26,000
Grants towards cottages for tuberculous ex-Service men	20,000
	£63,534,657

During the year 1927-28 the total amount of Exchequer subsidy paid was £9,540,966. The estimates for the year 1928-29 contain provision for £10,665,000 in respect of housing subsidies. At March 31, 1928, the average rent (excluding rates, etc.) for all types of houses erected under the provisions of the Housing, Town Planning, etc., Act, 1919, was 9s. 5d. per week.

Between 1919 and March 31, 1928, 87 local authorities submitted 118 schemes for the improvement of insanitary areas. Of these schemes, 93, involving the demolition of 12,150 houses and other buildings, had been confirmed by March 31, 1927.

During the year 18 schemes, involving the demolition of 1,555 houses and other buildings, were confirmed.

The Housing (Rural Workers) Act, 1926.

The local authorities primarily responsible for preparing schemes under this Act are the councils of counties and county boroughs. The Minister has, however, the power, in certain circumstances, to declare the council of a county district the authority in that district, in lieu of the county council.

Up to March 31 last, out of the 61 county councils in England and Wales (excluding London), 45 had submitted schemes under the Act to the Minister and had obtained his approval. These schemes covered the whole of the administrative counties in question, with the exception of 36 districts, where the district councils were made the authorities. Up to March 31 last assistance amounting to £25,313 by way of grant and £2,760 by way of loan had been promised by the local authorities in respect of 334 dwellings.

TOWN PLANNING.

Regarding the general progress of town planning, the report says :—The year has witnessed a great increase in town-planning activity, which has been reflected in every phase of town-planning work. The numbers of new resolutions to prepare schemes, and of preliminary statements and schemes submitted for approval, have all exceeded those for previous years, and the increase has been accompanied by a simultaneous growth in the appeal work and in the promotion of conferences to assist in the settlement of differences between local authorities and owners or between local authorities themselves. The number of urban authorities, however, with a population of more than 20,000 at the last census, who have not yet submitted any town-planning proposals in the form of either resolutions or preliminary statements or schemes, is still 98, and many of those who have already submitted proposals have done so only in respect of parts of their town-planning areas. Some of the districts concerned are areas where the financial position is difficult, and where therefore there may be good reason for not proceeding for the present; and some of the other local authorities have little or no undeveloped land in their areas to plan.

Improvement and Building Lines.

The Minister is glad to observe that county councils are displaying an increasing interest in town-planning matters, with which they are closely concerned, not only on account of their road powers, but in the interests of their own building developments or other statutory uses of land which may sometimes be extensive. There is still need, however, for closer collaboration between county councils and local authorities preparing schemes. While the county councils have not at present expressly any town-planning powers, their powers of prescribing improvement and building lines under the Public Health and Roads Improvement Acts of 1925 on roads for which they are responsible are essentially of a town-planning character, and it is highly important that proposals for the exercise of these powers in town-planning areas should be considered at the same time as, and as part and parcel of, the town-planning proposals. The road system in a town-planning area should be planned as one whole, and it is obvious that the plan as a whole will vary according to the proposals in contemplation by the separate authorities, *e.g.*, a projected by-pass road may render the prescription of an improvement line on a main road superfluous or reduce its depth, or the town-planning authority may desire a deeper building line on a particular county road on special town-planning grounds which may not directly concern the county council. While, however, the road plan should be prepared as one whole and in collaboration between the interested authorities, this does not mean that the county council should necessarily forego the independent exercise of their powers under the above-mentioned Acts in the town-planning area and merge them in the town-planning scheme. The plans can be prepared in unison, and each authority carry them into effect by the separate exercise of their respective powers.

The Minister continues to receive evidence of the overwhelming advantages of the frank discussion by local authorities of their town-planning proposals with estate owners, as soon as they have the general outline of their proposals in mind, and always before the proposals are given definite and formal shape. The Minister's experience in dealing with preliminary statements submitted to him for approval shows that more satisfactory and successful proposals always result where the local authorities take estate owners into their confidence in the shaping of the proposals, without leaving the views of the latter to be ascertained by formal representations and objections, when the preliminary statement has been actually prepared and deposited for local inspection. It is a safe assumption that a much better (and less costly) scheme will be obtained with the collaboration of estate owners than can be got without it. Estate owners as a body have always, so far as the Minister is aware, been found to be responsive when properly approached with sensible proposals, and any disposition to unreasonableness or obstructiveness on the part of individual owners is likely to be checked by the general body of owners themselves, when called in conference.

Elasticity of Zoning.

The Minister does not doubt that the result of the approval of preliminary statements and schemes, and their use as a basis for the guidance of development pending the settle-

* This figure includes an estimated figure of 30,000 houses built between the Armistice and October, 1922, for which period exact statistics of the number of houses built without State assistance are not available.

ment of the full schemes, has generally been to induce a sense of confidence and stability which has fulfilled its purpose in encouraging the types of development for which the areas or the different parts of the areas were planned. Some cases have, however, come to his notice of misunderstanding of the proposals in approved statements. In particular it has sometimes been assumed that areas have been reserved as exclusively residential, and complaint has been made that houses have been erected and acquired in this faith, when it was clearly shown in the approved statements or schemes that power was reserved to allow other types of buildings, particularly shops and public buildings, in the areas, by special consent. The underlying object of the proposals has been to declare the areas as primarily and predominantly residential, but to recognise that provision must be made for the entrance of shops and other buildings on suitable sites or under special circumstances. In planning extensive areas over large parts of which estate development has not commenced and is not in early prospect, it is not found practicable to forecast the detail of development, as distinct from its general trend and outlines, with sufficient certainty to enable the sites of shopping centres, schools, and similar special buildings to be determined with precision beforehand. Nor has it been thought fair or in the general public interest to place an absolute ban on the erection of industrial buildings over large areas of land, whatever the circumstances and whatever the character of the industry concerned. Complete segregation of different types of development is not generally practicable, even if it is always desirable. In short, town planning is recognised to be a more or less continuous process within the fixed framework of the larger outlines of development, and local authorities should not rest content with their approved preliminary statements or schemes, as the case may be, but should use the power of special licence entrusted to them for the purpose of defining additional shopping and similar sites as development reveals the coming need for them, without waiting till development has proceeded so far as to render their (inevitable) introduction a cause of grievance and disappointment to those who have already settled in the locality.

Preservation of Villages.

Another source of dissatisfaction has been the real or alleged effect of town-planning proposals in encouraging the invasion of secluded villages or other localities of special charm or interest by building development. Provision for new roads and widenings are often regarded with suspicion and jealousy on this account, and local authorities subjected to criticism which is not always just. An excellent illustration of a suitable method of preserving local amenities, both urban and rural, is to be found in the inauguration of the Oxford Preservation Trust, formed with the object of preserving the amenities of the city and its surroundings, acquiring land for the purpose, and conserving the natural features of the land and promoting its development on lines in harmony with the object of the Trust. It is understood that the Trust proposes to work in co-operation with the city council, as the town-planning authority.

Regional Planning.

The main need at present in connection with regional planning generally is a closer study of the possibility of concerted measures for carrying regional proposals involving public expenditure into effect, as and when the time for doing so arrives, including the promotion of agreed methods of distributing the cost among the interested authorities, whether by means of the establishment of joint bodies administratively and financially responsible for selected proposals affecting a group of authorities, or by means of special agreements between the authorities benefited. It cannot be assumed that this aspect of the question can safely be left to be dealt with till the regional plan has been fully elaborated and completed, as the progress of development in the meantime may result in jeopardising an essential proposal in the plan, if the proposal is one (*e.g.*, a regional road or open space) that affects a number of authorities, and no means have been devised beforehand for meeting the situation. Cases have already arisen in which regional proposals have had to be abandoned or modified on this account, and it is important that joint committees should be ready, as far as possible, with settled arrangements for meeting the emergency. The Minister is glad to observe that a number of joint committees have appointed Ways and Means Sub-Committees with this object.

Royal Commission on London Squares.

The recent conversion of Mornington-crescent and Endsleigh-gardens to building purposes and similar threats to other London squares aroused a general public feeling of uneasiness as to the future of these characteristic features in the development of London. The Royal Commission appointed has held a number of meetings and heard a great deal of evidence. It is anticipated that their report will be made soon after the publication of the present report.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—ED.

Contract Question.

[REPLIES TO "ARCHITECT," AUGUST 31.]

SIR,—Much depends upon the exact wording of the clause in the contract governing P.C. items and arbitration. All expenditure under P.C. items should be dealt with through the contractor, the employer being credited with the trade discount, which, however, is made to the contractor. As distinct from this discount, the builder is entitled to any further discount for cash that can be obtained from the merchant or manufacturer. In a lump-sum contract, where no other arrangement is specified, it is customary to allow the contractor 10 per cent. on P.C. amounts, which covers not only profit but also accepting delivery, unpacking and returning empties, handling and responsibility for damage or loss during the term of the contract, in addition to recompense for time of himself or clerical staff in dealing with the invoices, etc. Where the bill of quantities can be consulted, it will be found that 20 per cent. is the usual percentage addition, *i.e.*, 10 per cent. for profit and risk, and 10 per cent. for actual services rendered.

Because a contractor undertakes to deal with fifty pounds' worth of material without a *quid pro quo* is no argument for withholding his legitimate profit and remuneration for services rendered (as detailed) if the expenditure be increased, and to adjust the contract *equitably* a percentage addition should be made on the extra amount expended. But equity and law are not quite the same thing, and a legal decision, if sought, would circle around the exact wording of the specification referring to P.C. items.

G. L. W. B.

SIR,—If £250 has been expended upon the same number of fireplaces as that for which a P.C. sum of £50 was provided, the contractor is not entitled to any profit, none having been added to the P.C. sum. If, however, a greater number of fireplaces has been purchased, a new question will arise. It is assumed that cash or other discounts or commissions have been dealt with and that the cost of handling and fixing is outside of the question; also, that there has been included under "Profit" nothing which would incur an additional loss to the contractor caused by quintupling the P.C. sum. T. H. R.

SIR,—I think that in a case where the original contract has been varied to such a wide degree as shown in the figures of the P.C. amounts quoted, the contractor would have good ground for claiming that the increase was not a variation but a new element in the contract, necessitating fresh terms.

EQUITY.

SIR,—If the builder had the opportunity to add profit to the P.C. item, and either by intention or neglect failed to do so, he has set the precedent for the adjustment of the P.C., and having secured the contract by sacrificing his profit on this item, should not complain if in the adjustment nothing is added to the actual cost.

"F.S.I."

New Austrian Oak.

[REPLY TO MR. T. G. HUNTLEY, AUGUST 31.]

SIR,—Austrian oak should not have been used for outside work. It is not so durable as English, and is considerably more expensive. Personally I have never found it used externally, but should presume that coating with lime putty and brushing off after 24 hours would have the desired effect as found successful with new English oak.

RESTORATION.

Tenant's Fixtures.

SIR,—Is there any precedent for regarding an independent boiler, supplying hot water to a bath and sinks, etc., as a tenant's fixture, or am I right in taking that such a fitting, once fixed, becomes a part of the fabric of the house?

TENANT.

Street Widening.

SIR,—The owner of property opposite a new building in course of erection makes claim for damages to rights of light owing to the raising of the new skyline opposite. The side of the street is involved in a pending street widening scheme. Is his claim for damages prejudiced in view of this coming event?

DOUBTFUL.

Church Pews.

SIR,—Can any reader recommend a liquid solution other than linseed oil which can be applied to the carved ends of oak seats (church pews) to "freshen them up," and which will not alter the colour of new oak?

G. D. C.

A Question of Fees.

[REPLY TO "JOHN SMITH," AUGUST 17.]

SIR,—If a job is entirely re-measured after completion, the quantity surveyor is entitled to charge his scale fees afresh for these services, since his original quantities are of no use to him except as a priced schedule, the pricing of which has been done by the contractor, and which is not a service required of him.

The architect is not entitled to charge fees on contracts not arranged by him, and which he has not supervised. But it is very difficult to see how any work can be done that does not involve supervision on the part of the architect. More often than not the interference of the employer in such matters involves much additional work for the architect, and where this is the case it is obviously unjust to deny him his fees.

ARCHITECT.

Colouring a Floor Green.

[REPLY TO F. TATCHELL, AUGUST 10.]

SIR,—Any cement floor or pavings can be coloured permanently by the method which I use, as mentioned in my reply to "Red Tennis Courts" in your issue for August 3. I have laid grass-green tennis courts and pavings of various descriptions. Mr. Tatchell's method is not the correct one, and would not give permanent colourings.

FRANK JAY.

ILLUSTRATIONS

(*Continued from page* 372.)

was called for. To ensure this, staircases, lifts, lavatories, cloakrooms, etc., were designed in small blocks projecting from the main building. These blocks are built in mass brickwork and are fire-resisting. The planning of the projecting blocks gave a motive for the general architectural treatment and suggested the tower masses at the corners and in the centre which provide the necessary solidity and satisfy the eye when contrasted with a large expanse of glass. To facilitate repairs, window cleaning and periodic repainting, a continuous runway has been formed immediately under the projecting gutter cornice crowning the elevations.

The general contractors for the erection of the factory were Messrs. Gerrard and Sons, Ltd., of Swinton, Manchester, and the bricks used for facings were Brindle engineering bricks supplied by Messrs. Partridge and Guest, Powke-lane Brick Works, Old Hill, Stafford. For external facing the bricks were specially selected to give a pleasing multi-colour and iridescent effect, and surface texture in the large masses of brickwork in the towers was arrived at by the use of rather wide flush-cut mortar joints.

Following is a list of the sub-contractors :—Val de Travers, Birmingham, asphalt; Partridge and Guest, Old Hill, Stafford, facing bricks; Johnson's Reinforced Engineering Co., Manchester, bricktor; Braithwaite and Co., structural steel; Ferguson and Sons, slater; Vulcanite, Ltd., roofing felt; National Brick Co., partitions; Heywood and Co., patent roof glazing; R. W. Brooke and Co., Ltd., wood block flooring; Charles Nelson and Co., Ltd., cement; R. Gay and Co., Ltd., paint; G. Johnson Bros., special electric light fittings; Mackenzie and Moncur, Edinburgh, W. E. Horseman, Son and Co., Mitcham, Shanks and Co., Glasgow, W. R. Pickup and Co., Horwich, Oates and Green, Halifax, Duckett and Sons, Ltd., Burnley, Dodd and Oulton, Liverpool, and East and Co., Dundee, sanitary fittings; W. R. Leggott, Ltd., and H.M.O.W. stores, door furniture; Rea Metal Casements, Ltd., Stanley, Liverpool, and Crittall Manufacturing Co., steel casements and lanterns; Bostwick Gate Co., Willesden, folding gates; David Rowell and Co., Ltd., rolling shutters; Carter and Co., Ltd., Poole, wall tiling; W. B. and F. T. Archer, Handsworth, Birmingham, special workshop fittings; Adamsez, Ltd., drinking fountains; G. Prince, Birmingham, plaster work; Taylor and Sons, Chester, painting.

Mr. Banfield was the clerk of works.

Mr. F. A. Llewellyn, O.B.E., H.M. Office of Works, was the architect.

A Stepney Housing Scheme.

The following notes relate to the Brunton Wharf housing scheme of the Metropolitan Borough of Stepney, illustrated in our last issue. While it resembles in many details the larger tenement scheme at New Gravel-lane, Shadwell (also illustrated last week), the Brunton Wharf scheme has some interesting points of difference. Like the previous instance, it is a result of the successful activity, under very great difficulties, of the Stepney Borough Council, which has managed, without overcrowding, to put on a site having a net acreage of one and a quarter a total of 86 dwellings, with shops in addition. The ground concerned has a building frontage of about 165 ft. facing south on to the main highway (Commercial-road East), and is comparatively long in proportion; it is bounded on the west by a street and on the east by the Regent Canal. The Ministry of Health very wisely stipulated that the buildings must not exceed five stories in height, and that the main frontage was to be reserved for shops and kept low so that sunlight would be available in the central court; these points have been embodied in the design.

The eastern block is served by a new private road linking up with what was previously a cul-de-sac at the northern end. As shown by the typical plans and section, its two bottom and two top stories are similar to those in the larger scheme first described, and consist of small two-story dwellings. Here, however, there is one floor less in the total height, and in consequence some real flats are introduced on the second floor, as shown, each flat extending under and over two dwellings of the cottage type. Access is provided via an internal public stair at the south end and an open one at the north (the less used) end, with public galleries at second and third-floor levels. Unlike the larger scheme, which was steel-framed, this case is one of normal construction, with the floors of fire-resisting construction only where they occur between dwellings. The floors elsewhere and the main roofs are timber framed. Ash-chutes, etc., are provided as before, but in this case the hot water is obtainable by means of an inter-oven and back boiler in each living-room.

The west block is similar to that on the east, except that in this case more of the dwellings are of the two-bedroom type. The front block has five large shops, each divisible into two if desired, with one story of flats over the centre portion, carried up for three more stories at the corners, all as shown by the plans. The front elevation follows the usual Georgian precedent with brick facings and sash windows, enlivened by a few modest features and the central steep roof of old pantiles. The buildings are nearly completed, and, as in the previous case, have been carried out under the control of Mr. Osborn Adamson, building works manager to the Borough Council.

The principal sub-contractors were :—A. D. Dawnay & Sons, Ltd., steelwork; Frazzi Flooring Co., Ltd., flooring; H. Newsum, Sons & Co., Ltd., joinery; Walter Cowen, Ltd., hot-water installation and plumbing; The Carron Company, railings and stoves; T. W. Palmer & Co., external staircases; "HEB" Agencies, Ltd., internal doors, etc.; Ragusa Asphalte Paving Co., asphalt work; Mr. D. E. Etheridge, tar paving; Standard Metal Window Co., window frames.

Mr. John Dewar, M.I.Struct.E., of 45, Albemarle-street, was the consulting engineer, while Messrs. G. R. Tasker & Sons, 38, John-street, Bedford-row, W.C.1, were the quantity surveyors. Messrs. E. G. Culpin and R. S. Bowers are the architects.

SOCIETIES AND INSTITUTIONS

THE ROYAL SANITARY INSTITUTE.

The next courses of training conducted by the Royal Sanitary Institute commence on Monday, October 1, for sanitary inspectors; Monday, October 8, for smoke inspectors; and Friday, October 12, for meat inspectors. In addition to these courses, the following examinations are conducted by the Institute: Sanitary Science, Meat Inspectors, Smoke Inspectors, School Hygiene, Health Visitors, Maternity and Child Welfare Workers. Syllabuses of the lecture and of the examinations, containing full particulars, are obtainable from the Secretary of the Institute, 90, Buckingham Palace-road, London, S.W.1.

THE SURVEYORS' INSTITUTION.

The Council of the Surveyors' Institution announce that the following members were successful in obtaining the Institution's Special Diploma in Rating as a result of the examination held in June last:—Messrs. David Evans, Lampeter, Cardiganshire; Arthur Gadd, Kingston-on-Thames; W. J. Hackett, M.B.E., Newcastle-on-Tyne; Allan Kirk, P.W.D., Hong Kong; A. H. London, Weymouth; John Stephen, Waterloo, Liverpool.

OBITUARY

Mr. W. H. Seth-Smith.

We regret to announce the death, at the age of 76, of Mr. William Howard Seth-Smith, F.R.I.B.A. Mr. Seth-Smith entered the office of Habershon & Pite, architects, of Bloomsbury-square, about 1875 as pupil, and practised with success, ultimately taking into partnership Mr. W. E. Monro. Though in poor health, he maintained an active interest in his profession until last year, when he retired. He was a man of wide reading, and throughout his professional career he delighted in water-colour sketching. He took a keen interest in architectural education, particularly in connection with the Architectural Association, of which body he was president from 1900 to 1902. His enthusiasm found an outlet in the formation of the Society of Architects, now merged into the Royal Institute of British Architects. Among his executed works are St Luke's Church, Maidstone, the new Church Missionary House, Salisbury-square, the Grafton Hotel, Unity House Homes for Working Boys and Girls, a work in which he was deeply interested, and some excellent houses throughout the country.

Mr. E. J. Harding.

Mr. Ernest James Harding, who was for 35 years clerk of the works at St. Paul's Cathedral, has died at his home at Sydenham, at the age of 77 years. Mr. Harding received his early training by working as a mason under an uncle who was clerk of the works at Westminster Abbey, and entered the service of St. Paul's Cathedral in 1876. A year or two later he was responsible, under an architect, for the hanging of the present peal of 12 bells, and also of the bell known as Great Paul, which weighs 17 tons. He was also in charge of the difficult work of hoisting into place the large figures of the four Latin and four Greek Fathers, which occupy niches under the dome, above the Whispering Gallery. Another of his outstanding pieces of work for the Cathedral was his scheme of arrangement of the scaffolding for the setting of the mosaics in the choir. By his plan it was possible to carry on this work continuously, even during the morning and evening services on week-days, when the only sound of the work to be heard was that of the clipping of the pieces of mosaic to make them fit into their places.

TECHNICAL INSTITUTIONS.

Lectures for Teachers.

We have received from the London County Council their handbook for the session 1928-9 concerning lectures and classes for teachers. Design, metal-work, woodwork and decoration for the home are among the subjects dealt with in the booklet, which may be obtained from the Education Officer, the County Hall, S.E.1.

The College of Estate Management.

The autumn session of the college will commence on Monday, September 10, and will end on December 21, 1928. The winter session will commence on December 31. During the autumn session classes will be held during the day time from 10 a.m. to 1 p.m. and 2 p.m. to 5 p.m., except Saturdays. Outdoor demonstrations will be held on certain Saturdays. Lectures will be delivered every week upon all subjects required for the Intermediate Examinations of the Surveyors' Institution in the Building and Quantities sub-division, and personal instruction given both for the Intermediate and Final Examinations. In the evening classes all the subjects of the examinations will be dealt with during the autumn and winter sessions.

THE BUILDING TRADE

EVERYDAY SCIENCE FOR ARCHITECTS AND BUILDERS—XXXV

BY A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E.
Diagrams and Illustrations by M. R. Dumville.

Thermo-electricity.

THE introduction of a brief survey of the other two methods of obtaining and maintaining an electro-motive force (mentioned in the previous article) is undertaken with a certain amount of hesitancy, particularly in the case of thermo-electricity. It is felt, however, that, for a genuine understanding of the subject to be at all possible, it must and ought to be done. As, in the case of Volta's cell and the use of chemical energy to obtain an electro-motive force, it was not difficult to reproduce it, so Seebeck's experiment—discovered about 1822—showing how heat energy can be used for the same purpose, is quite easily demonstrated.

Experiment.—Fig. 84.

Seebeck showed that if two different metals be connected up in a circuit and the actual junction of the two metals has its temperature raised or lowered, a potential difference (or E.M.F.) is set up which will cause a current to flow round the circuit. The current can be detected by a sensitive galvanometer, or ammeter, which is a current measurer.

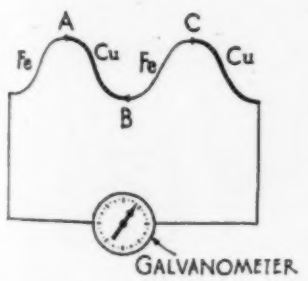
In Fig. 84 A, B, and C represent three junctions or points at which a piece of iron wire (Fe) is joined to a piece of copper wire (Cu). The iron and copper wires are joined up alternately. For the purpose of the experiment there really need be only one junction—viz: A. The two ends of the consecutive pieces of iron and copper wire are joined to a sensitive galvanometer, as shown. No potential difference or electrical pressure is brought about, nor is an E.M.F. set up as long as the junctions A, B, and C all remain at the same temperature.

If, now, junction A is warmed by being held for a few seconds between the finger and thumb, provided the galvanometer is sufficiently sensitive, the needle will be deflected from its position of rest, thus showing that a current is flowing round the circuit, and that an E.M.F. has been set up by supplying heat energy to the junction A, and so raising its temperature above that of the other junctions.

Let us for a minute or two refer to Ohm's Law, mentioned at the end of article XXXIII, which says that the current, in amperes, flowing in a circuit is equal to the E.M.F., in volts, divided by the resistance, in ohms. Since the resistance of the circuit, shown in Fig. 84, does not change, evidently the current will be proportional to the E.M.F., so that if the current be increased, the E.M.F. must have been increased in order to produce the increased flow or current. Let us also consider that an increased galvanometer deflection must be caused by an increased flow of current round the circuit.

Then raise the temperature of junction A

FIG. 84.

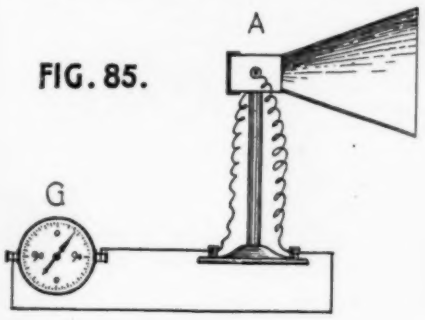


by heating it with a match flame, and finally continue to increase its temperature by either a methylated spirit lamp flame or a bunsen burner flame, we shall find that as the temperature of junction A continues to rise above that of the other junctions, particularly B, the deflection of the needle of the galvanometer continues to get larger, and this means that the current flowing in the circuit has become larger, which really means that the E.M.F., developed by the increased supply of heat energy to junction A, has also increased. Therefore we may say that the E.M.F., set up by heat energy, is proportional to the difference in temperature between junctions A and B. Of course, there are many limitations to the size of the E.M.F. generated, one of which is fairly obvious—viz.: a temperature, at which the metals forming the junction will melt, would very soon be reached, and in consequence, the electric circuit would be broken.

Direction of the Thermo-E.M.F.

It has been discovered and verified that, in the case of copper and iron junctions, the direction of the E.M.F. is from the iron to the copper across the cold junction (I.C.C. iron to copper across cold), or from copper to iron across the hot junction. On referring to Fig. 84, we see that the direction of the E.M.F. is from copper to iron through A (the heated junction), and from iron to copper through B (the cold junction). Further, we see that these two directions are one and the same, and it is important to remember that the E.M.F. is only maintained just as long as junctions A and B are at different temperatures.

FIG. 85.



THERMOPILE

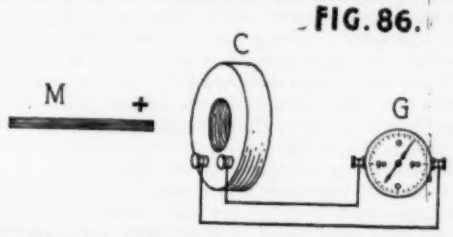
The experiment would have been quite complete and self-contained without junction C. The reason for adding it will probably suggest itself, for surely it will be seen that if we raise the temperature of this junction at the same time and rate as we raise the temperature of junction A, we shall double the size of the E.M.F. developed. Adding another junction D would not, however, increase the E.M.F., whereas the addition of a fifth junction E, and causing it to be heated at the same rate as A and C would increase the E.M.F., and make it three times as large as if there were only one junction heated—viz., A.

Now by experiment it has been discovered that metals can be arranged in a list so that if a junction be made of two metals, one from the top of the list and one lower down, and the junction be heated, the direction of the E.M.F. will be from the former to the latter through the cold junction. This list of metals is headed and ended by Antimony and Bismuth respectively. (A. B. C—Antimony to Bismuth across cold junction.) These two metals also give the greatest E.M.F. for a definite rise in temperature of one junction, and have been used in the construction of :—

The Thermopile.—Fig. 85.

This piece of apparatus is very sensitive to heat, and can be used for comparing the amount of heat radiated from the surfaces of different materials when they are maintained at the same constant temperature. It consists of about 50 or 60 junctions of Antimony and Bismuth, folded backwards and forwards upon one another to form a rectangular pile, and, naturally, insulated from one another. The junctions at one end are covered with a

FIG. 86.



small cap, as shown in the figure, while those at the other end are, as a rule, coated with lamp-black, known and mentioned previously as a good heat absorbent. This end has also fitted to it a cone-shaped piece of metal which will cause heat rays to be concentrated upon the blackened end of the pile. The ends of the pile of junctions are connected to insulated terminals on the base of the instrument, and these, in turn, are connected to a sensitive galvanometer.

The slightest change in temperature of the open end of the pile is shown by the galvanometer deflection. This can be brought about by simply holding the open hand in front of the cone for a few seconds. A match flame held in a similar position would cause very violent movement of the needle. Of course, its effect could be reduced by moving it farther back from the cone. For comparisons of radiant heat, the distances would have to be the same in all cases.

E.M.F. by Mechanical Energy.—Fig. 86.

This is possibly best explained by reference to Fig. 86. C is a wooden frame upon which is wound a coil of wire, the two ends of which are fixed to the two terminals shown on the lower part of the face of the wooden frame. These two terminals are connected by wires to the galvanometer, marked G. M represents a bar magnet, and its marked end, or North-seeking end is denoted by a + sign.

We now have a closed circuit, consisting of the coil of wire and the galvanometer, and a bar magnet held with its marked end pointing to the face of the coil. There will be no galvanometer deflection as long as everything remains at rest. Now fairly quickly push the marked end of the magnet into the middle of the coil and let it remain there. As soon as the magnet started to move towards the coil, the needle of the galvanometer commenced to move, and the deflection reached a maximum as the end of the magnet entered the coil. The needle deflection died away as the magnet came to rest at the centre of the coil. If, now, the magnet be pulled out of the coil another deflection of the needle of the galvanometer is caused, but it is in the opposite direction. There are three or four important points in connection with this experiment.

(*a*) Since the needle was deflected, there must have been a current, and therefore an E.M.F. generated.

(*b*) It was caused mainly by the mechanical energy used in pushing the magnet into the coil.

(*c*) The E.M.F., and therefore the deflection, only lasted while the movement of the magnet was taking place.

(*d*) The size of the E.M.F. depended, for one thing, upon the speed with which the magnet was thrust into, or withdrawn from the coil.

(*e*) The direction of the E.M.F. was decided by whether the magnet was pushed into or removed from the coil.

All the principles of this experiment—known as electro-magnetic induction—have an important bearing upon electrical machinery, and as, in the first case, the principles of magnetism are involved, we must consider those in the next article.

THE TRADES UNION CONGRESS

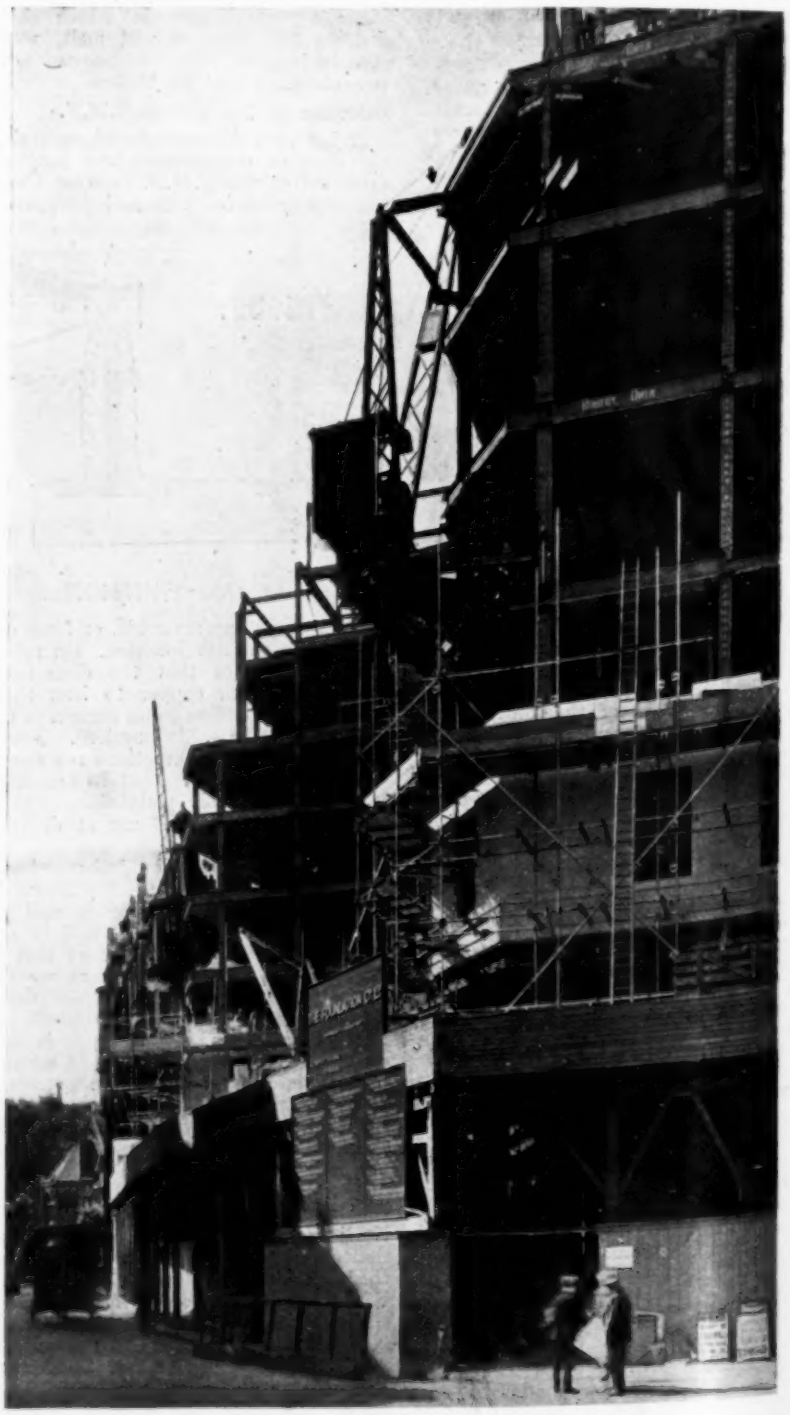
PRESIDENTIAL ADDRESS

MR. BEN TURNER presided at the diamond jubilee conference of the Trades Union Congress which opened at Swansea on September 2, and delivered the presidential address. If that address be described as somewhat colourless that is no reflection on the president, for it is the tendency of many chairmen to open proceedings with a militant address unsuited to the occasion. It is, perhaps, hardly surprising that the president, speaking at the sixtieth meeting of the congress, attributed to that organisation all the remedial legislation that has marked that period, instancing Workmen's Compensation, Health Insurance, Unemployment Insurance, and even Parliamentary and local representation, but he acknowledged that assistance had been rendered "by odd men and women from the middle classes." This is to ignore the continued efforts of Parliaments, representing different political parties, to effect remedial legislation which has been such a characteristic of the period in question, unless these Parliaments come under the description of "odd men and women." Parliament will not quarrel with any such description, but in some quarters there is a tendency to overlook this vast system of remedial legislation coupled with the benefits for which money is voted by Parliament, which exceeds that granted by any other country and which forms part of the floating assets of the workers of this country. Speaking of the Melchett conferences, the president referred to that part of his predecessor's (Mr. Hicks's) address, which related to joint discussions upon which in fact the Melchett conferences were founded, and indicated that the General Council had in the steps they had taken only been animated by the sentiments expressed in the president's address at the last congress. In some quarters Mr. Hicks has been accused of having run away from the opinions he expressed when delivering his presidential address, but the key to his position is perhaps given by Mr. Turner now, who is reported to have said, "We are not out to bolster up a false system, but are imbued with the ideal of doing our best to prevent people from being poor and dying from hunger during the transition period from individual capitalism to collectivism and socialism." Allowing for the exaggeration of rhetoric, this raises the clear issue of future policy; is it to be individualism or socialism? But there is one point not sufficiently considered by the many, which is that to abolish individualism and to trust to collectivism is to place the nation on the steeply inclined plane down which the descent to communism is easy if not inevitable, as can be seen from the history of contemporary nations.

In regard to unemployment, the president began by observing that they should not make a fetish of work and more work, or production and more production, but aim at the well-being of all, and he suggested a reduction of hours in order that the work should be more spread out, and he also suggested utilising the resources of the State to employ men on the land. The reduction of hours in order to spread out employment is no panacea unless the wages are reduced in accordance with the reduction in hours, and work and output are not fetishes, but the sole source from which the nation can maintain its position and its standard of living. We should have been in sympathy with the president if he had called attention to the unproductive expenditure by certain classes, not what used to be termed the "wealthy classes," but represented by the lower middle class. Expenditure by this class means the maintenance of high prices and affects the cost of living of all. Mr. Turner deprecated the money and time expended on drink and gambling, and said that, after all, the biggest evil of society was man-made poverty. This is true, but since the war there has been an outbreak in unproductive expenditure by certain classes which is wholly unwarranted by the economic conditions of the country. This has inflicted hardships on large sections of the community, and a halt should be called. The needs of the nation are the saving and production of capital, and there is no other royal road to prosperity. A nation bent on enjoyment and luxury will be certain to suffer, and neither remedial legislation nor a conversion from individualism to collectivism will serve to prop it up. Work and thrift are the only panaceas for unemployment and misery.

NEW HOIST DEVICE

A NEW device for hoisting stonework into place during facing operations has been introduced at St. James's Park—where the Foundation Co., of Aldwych House, W.C., are erecting the new cruciform building for the Underground Railway to the plans of Messrs. Adams, Holden and Pearson. Owing to the stepping-back of the upper floors of the building, it was found impossible to put up a "Scotsman" derrick, and a novel device was designed by Mr. F. W. Nicholson, of the contracting company. On the corner of the building, at fourth-floor level, a platform of timber has been jutted out over the road—bracketed underneath and counter-weighted at the inside end to take the weight of a four-ton Butters' crane at the other end. This crane, which has a maximum carry of three tons, is also tied into the building at the top, and hoists stone from the ground to the masons' cradles. It has one immediate advantage over the "Scotsman," that it can turn through an angle of over 250 degrees. Two of these cranes, the other with maximum load weighing 4½ tons, have been installed, and we learn from Mr. Nicholson that the saving effected by them in time and labour is very considerable.



Crane on Wood Bracket hoisting Stone for facing new offices of the Underground Railway Co., Broadway, Westminster.

APPRENTICESHIP IN THE UNITED STATES

A REPORT* on an inquiry into apprenticeship conditions in the building industry has just been published by the United States Department of Labour. The primary purpose of the investigation was to discover what are the existing methods of producing skilled workers for the building industry, what machinery for training apprentices exists, and how it functions. The apprenticeship problem in the United States (according to the "Ministry of Labour Gazette") is not treated nationally, although a few trade unions have national programmes. Even in cities where the problem is treated from the standpoint of the industry as a whole, as in Cleveland, certain crafts in the industry may be acting independently of the general plan, or may be doing nothing whatever. While apprenticeship by formal indenture between employer and boy is not widely practised, there is coming into use a system which amounts to the same thing—the joint apprenticeship committee system. These committees are established for separate crafts, and are composed of representatives of employers and of journeymen, and, in some cases, of the city school boards. The close association of the local vocational education authority with the joint committee is found to result in more vitality, better organisation, and a more definite adjustment to the needs of the industry. Apprentices are under agreement with the committee to serve their full time and to abide by the rules of the committee, which on its side undertakes to see that the boy has continuous employment and proper facilities for training during his apprenticeship. Where joint committees do not operate, the union may serve the same purpose, the apprentice being in effect indentured to the local union and governed by the terms of the working agreement between the union and the employers, with the union acting as placement agent to keep the boy employed.

Apprenticeship systems designed and organised to comprise the whole building industry are found in four cities only: Cleveland, Detroit, New York and Niagara Falls. In none of them does the scheme embrace all the building crafts, while the New York organisation in particular is not very strong. In other cities uncorrelated craft action is fairly effective, and is most successful in Chicago. Where joint committees are at work, part-time day-school work (*e.g.*, four hours a week) is sometimes compulsory, and attendance at evening continuation or technical schools is always encouraged.

The craft organisations having definite national programmes, of fairly wide application, are those concerned with tile and marble setting, plumbing, bricklaying, electrical and sheet metal work. Trades having no apprenticeship policy are plastering, carpentry, painting and decorating. The cry that "boys won't go into the trades" is not borne out by the inquiry. The unions everywhere reported long waiting lists of applicants for apprenticeship, and it is quite apparent that the dearth of apprentices in the building trades is not due to a dearth of boys interested. Those most closely in touch with the situation do not hesitate to declare that the individual employer is chiefly responsible for the shortage, he on his side pleading that the difficulties created by the seasonal character of the industry and the "hire and fire" system of employment, make continuous employment and training impossible. Although many unions have apprentice quotas, this causes no restriction, as only relatively few employers have any apprentices at all.

**Apprenticeship in Building Construction.* Bulletin No. 459 of the United States Bureau of Labour Statistics, Department of Labour, Washington.

AN ACTION UNDER THE TRADE DISPUTES AND TRADE UNIONS ACT, 1927

ONE of the first actions to be brought under the new Act relating to Trades Disputes and Trade Unions, Attorney-General *v.* Birkenhead Corporation, was heard at the end of last sittings and was reported at length in the *Times*, July 26, 27, and 28. The action was brought by the Attorney-General at the relation of a ratepayer for a declaration that certain resolutions passed by certain committees of the defendant Corporation were void under section 6 of the Trade Disputes and Trade Unions Act, 1927, and for an injunction restraining the Corporation from acting thereon. Section 6, subsection (1) provides that "It shall not be lawful for any local or other public authority to make it a condition of the employment or continuance in employment of any person that he shall or shall not be a member of a trade union or to impose any condition upon persons employed by the authority whereby employees who are or who are not members of a trade union are liable to be placed in any respect either directly or indirectly under any disability or disadvantage as compared with other employees."

The trial of the action occupied parts of several days. It is difficult to set out all the facts, but it appears that in May and June, 1927, the Parks and Cemetery Committee, the Road and Improvement Committee, and the Ferries Committee had passed the following resolution: "That employees of this committee affected from time to time by the decisions of the Lancashire and Whitley Council (non-trading societies) be required to become members of one of the trade union organisations with representation on the Whitley Council or contributing to the expenses of that body."

At the time this resolution was passed by the above committees the Trade Union Act, 1927, was not in force as that Act only came into operation July 29, 1927, and the Court intimated that it was not sure if the matter had rested there whether it was obligatory on the Corporation to pass a resolution to the effect that the resolutions had become void and illegal when the Act came into force. The report being long, it is somewhat difficult accurately to condense the facts, but so far as we can gather from the report, in September a member of the Council had given notice of a resolution that the previous resolutions of the Committee should be rescinded, but this resolution offended against standing orders that no resolution could be rescinded until after six months from the date it was passed, but on December 7, 1927, a member moved a resolution that to comply with the Act, and in view of a decision of the County Court in the case of a dismissed employee, to which we shall refer below, the Council should give the necessary instructions that the resolutions of the various committees should cease to have effect, but this resolution had been defeated by a majority in the Council.

In the course of the trial it appears from the report that the Judge had intimated that as the defendants had admitted that the resolutions were void the Court would not make a declaration that they were void unless it was shown that the defendants intended to act upon them, but certain evidence was given as to certain events which had occurred since the passing of the Act which in his judgment the Judge characterised as of considerable significance. It appears that in August, 1927, a Mr. Stafford had obtained temporary employment in the electricity department which was not one of the departments in which any resolution had been passed to employ only trade union men. Mr. Stafford was at that time a member of no union, but on August 11 he was approached by the district secretary of the Electrical Trades Union with a view to his becoming a member of that union. He had in fact shortly afterwards joined another union, but the Electrical Union threatened the Corporation to withdraw their members if he did not join that union, and then the borough electrical engineer was instructed by the committee to dismiss him as the committee had decided only to employ men of the Electrical Trade Union on the work in question. Mr. Stafford brought an action for this in the County Court and was granted a declaration that his dismissal was illegal and awarded £19 7s. 6d. damages. He had subsequently joined the Electrical Union and had been reinstated.

A Mr. Fenton, an electrician, had applied for work about August 18, but had been refused employment on the ground that only union men could be employed; lastly, in the Tramway Department there was evidence that although the manager of that department had not posted up the resolutions when they were passed before the Act had come into operation, after the Act had been passed he had asked the committee for leave to post them up and had been instructed on August 31 to post them up.

On this evidence the Court drew the inference that the refusal to give the instructions that the resolutions passed by the various committees should cease to have effect as proposed in the resolution of December 7 showed that the Corporation did not desire that the resolutions should cease to have effect, but on the contrary that they should still affect the minds of their officials and that the limited declaration asked for by the plaintiff that those resolutions were void and of no effect should be granted, but that an injunction should not be granted as the evidence had satisfied the Court that it had not been the practice of members of committees to require men to be, or to continue to be, members of a union, and except to the limited extent proved there was no desire to oppress non-members of trade unions, and the judge paid a tribute to the candour and fairness of the witnesses called on both sides.

Section 6 of the Act of 1927 may tend to increase the difficulties of local authorities where, as in Mr. Stafford's case, questions are raised between them and their employees by the claims of unions that the employees shall belong to a particular trade union, as the Act compels them to take up a strictly neutral attitude whilst the position of the employees is not so clear under the Acts.

Section (6), subsection (4) of the Trade Union Act, 1927, adds a provision to section 5 of the Conspiracy and Protection of Property Act, 1875, which is as follows:—"If any person employed by a local or public authority wilfully breaks a contract of service with the authority knowing or having reasonable cause to believe that the probable conesquence of his so doing, either alone or in combination with others, will be to cause injury or danger or grave inconvenience to the community he shall be liable to a fine not exceeding £10 or to imprisonment for a term not exceeding three months," and under sections 4 and 5 of the Conspiracy Act somewhat similar serious consequences must be present to the mind of the person breaking the contract to bring him within reach of the penal provisions.

But great inconvenience may be caused to local authorities by a mere threat to withdraw labour apart from the further question that even if it is withdrawn such consequences as are indicated in the above sections may not be apprehended, and thus it follows that local authorities have been anxious to avoid disputes solely arising out of questions between non-union and union men or between rival unions. They are now prohibited from avoiding this risk by prescribing the unions their employees shall belong to, and there appears to be some uncertainty whether there is any provision in the Acts dealing with threats on the part of the men to take action if a non-unionist or a member of a particular union is employed. Possibly section 1, subsection (2) of the Act

of 1927 which prohibits any person from instigating or inciting others to take part in, or act in furtherance of, a strike, coupled with the definition of "trade dispute" in section 5, subsection (3) of the Act of 1906, and the definition of "strike" in section 8, subsection (2) of the Act of 1927 may apply, but it is a doubtful point, and the strike must be one illegal under the Act, that is, have an object other than, or in addition to, the furtherance of a trade dispute, or be one calculated to concern the Government, either directly or by inflicting hardship upon the community.

The above decision shows the care that must be exercised by local authorities under section 6, for the defendant made a point that at any rate in some departments the notices of the resolution had been taken down, but the Court pointed out that simply pulling down the resolutions posted up was not in the least equivalent to a positive withdrawal of the instructions based upon the resolutions.

NEW BUILDINGS IN LONDON

Borough High-street.—PREMISES.—Messrs. Lloyds Bank, Ltd., have decided to build new branch banking premises with offices in the upper floors, to the plans prepared by Mr. P. D. Hepworth, F.R.I.B.A., 7, Gray's Inn-place, W.C.1. The builders are Messrs. Lole and Co., Trafalgar-square, Chelsea, S.W.3.

Camberwell-road.—REBUILDING.—The Walworth Wesleyan Church Trustees have placed a contract with Messrs. F. and H. F. Higgs, Ltd., Station Works, Hinton-road, Herne Hill, S.E., for the rebuilding of their church and schools. The architect is Mr. Edward Maufe, F.R.I.B.A., 3, Raymond-buildings, Gray's Inn, W.C.1.

City-road.—PREMISES.—An important contract placed last month is for the new headquarters at the corner of City-road, Tabernacle-street, E.C.1., of the Singer Sewing Machine Co., Ltd. Messrs. Prestige and Co., Ltd., Cambridge-wharf, Grosvenor-road, S.W.1, are the builders. The architect is Mr. W. A. Lewis, A.R.I.B.A., 11, Finsbury-square, E.C.2.

Clerkenwell-road.—BUILDING.—A contract for the foundation, etc., works, in connection with the new warehouse premises for the "Daily Mirror" Newspapers, Ltd., has been placed with Messrs. F. and H. F. Higgs, Ltd., Station Works, Hinton-road, Herne Hill, S.E. The plans for the building have been prepared by Messrs. Herbert O. Ellis and Clarke, 3, Old Queen-street, S.W.1.

Edmonton.—ENLARGEMENT.—The Middlesex C.C. Gas Meter Testing Station is to be pulled down and rebuilt and enlarged. The architect is Mr. H. G. Crothall, F.R.I.B.A., 87, Tufton-street, S.W.1.

Finsbury.—FACTORY.—The contract for the tea-packing warehouse in City-road, Ebenezer-street and Westmoreland-place, E.C.1, has been placed with Messrs. Bierrum and Partners, 92, Victoria-street, S.W.1. The architect is Mr. W. A. Lewis, A.R.I.B.A., 11, Finsbury-square, E.C.2, acting on behalf of the Maypole Dairy Co., Ltd.

Fleet-street.—BUILDING.—Messrs. Edgley, furniture suppliers, propose to pull down and rebuild their premises, at No. 125. The plans are being prepared by Mr. C. W. Horser, 46, Fleet-street, E.C.4.

Hackney.—MAISONETTES.—Eighty maisonettes are to be built at Mount Pleasant-hill, Dudlington-road, and Southwold-road, Clapton, for the Hackney B.C. Specification, bill of quantities and form of tender may be obtained from Mr. P. Holt, Borough Engineer and Surveyor.

Hendon.—HOUSES.—Messrs. the Canons Park Development Co. have submitted an application to the R.D.C. for the erection of 54 houses in Whitchurch-lane, Stanmore. The application has been approved.

Holborn.—CONVERSION.—The old advance booking offices of the Holborn Empire have been acquired by Messrs. Drage and Co., Ltd., for conversion into additional showrooms. A contract for the alterations has been placed with Messrs. F. Sage and Co., Ltd., Gray's Inn-road, W.C.1., and will be carried out under the direction of Mr. H. A. Welch, F.R.I.B.A., 7, New-square, Lincoln's Inn, W.C.1.

Holborn.—GARAGES.—Tenders are being invited for the erection of motor garages in Goldsmith-street, W.C.2, for the Holborn B.C. Mr. J. E. Parr, A.M.Inst.C.E., Borough Surveyor, Town Hall, High Holborn, W.C.2, has prepared the plans.

Kensington.—REINSTATEMENT.—The contract for the reinstatement of the "Golden Cross" public-house in Portobello-road, W., has been placed with Messrs. Sims and Russell, of Bloomsbury-street, W.C.1. The work will be under the supervision of Mr. G. G. Macfarlane, architect to Messrs. Watney, Combe, Reid and Co., Ltd., Stag Brewery, S.W.1.

Leman-street.—WAREHOUSE.—The Co-operative Wholesale Society, Ltd., are to build a large storage warehouse in Leman-street, E.1. The building will be erected by the C.W.S. Works Dept., and the contract for steelwork has been placed with Messrs. Dorman Long and Co., Ltd. The glazed terra-cotta façade will be supplied by Shaw's Glazed Brick Co., Darwen. The architect is Mr. L. G. Ekins, F.R.I.B.A., 99, Leman-street, E.1.

Lewisham.—SHOPS.—A block of six shops with flats above is to be built at the Obelisk, Lewisham. The builders are Messrs. T. Sawyer & Sons Ltd., Bexley-road, S.E.13, and the architect is Mr. A. E. Thomas, of Wandsworth.

Mitcham.—BUILDING.—The Ranelagh Dye Works, Ltd., have accepted the tender of Messrs. William Akers and Son, Ltd., High-street, Thornton Heath, Croydon, for their new dye works building in Western-road. The steelwork will be supplied by Messrs. Cross and Cross, Ltd., 66, Victoria-street, S.W.1. The architects are Messrs. Chart, Son and Reading, Bank-chambers, Croydon.

North Kensington.—DWELLINGS.—For the erection of 540 dwellings on the St. Quintin Park site, for the Sutton Dwellings Trust, tenders are now being invited. Messrs. Henry Tanner, 3, Hanover-square, W.1, are the architects, and Messrs. Widnell and Trollope, Broadway-court, Broadway, Westminster, S.W.1, the surveyors.

Oxford-street.—IMPROVEMENTS.—Alterations and improvements are projected to the "Academy" cinema in Oxford-street, W.1, owned by Messrs. Polandus, Ltd. Plans have been prepared by Mr. Peter Dollar, A.R.I.B.A., Craig's-court House, Charing Cross, S.W.1.

Regent's Park.—GARAGE.—Mr. S. Gordon Jeeves, A.R.I.B.A., Hanover-square, W.1, is the architect for a garage accommodating 1,000 cars and eight stories in height that is to be erected for Mr. Claude Grahame-White in Park-road, Regent's Park, N.W.1. The plan provides for shops all round the main hall.

Richmond.—CONVENIENCES.—New public conveniences are to be erected in the Terrace-gardens, Richmond-hill, for the T.C. The plans have been prepared by the Borough Engineer.

Strand.—BUILDING.—The Senate of the University of London (King's College) have placed a contract with Messrs. James Carmichael (Contractors), Ltd., 331, Trinity-road, Wandsworth, S.W., for new buildings at King's College. The architect is Mr. F. W. Troup, F.R.I.B.A., 14, Gray's Inn-road, W.C.1.

Sutton.—PREMISES.—A scheme of rebuilding is proposed by Messrs. Skinners, Ltd., drapers, to their showrooms in Sutton High-street. The contractor is Mr. C. H. Gibson, Croydon. The plans have been prepared by Messrs. George Davies and Son, FF.R.I.B.A., 121, Victoria-street, S.W.1.

Upper Thames-street.—PREMISES.—The old buildings which have stood derelict for over 10 years at the corner of Upper Thames-street and Dowgate-hill, E.C.4, are to be pulled down to make way for a block of warehouses and offices. The builders will be Messrs. J. Garrett and Son, Balham-hill, Streatham, S.W.12. The architects are Messrs. Gunton and Gunton, Empire House, St. Martins-le-Grand, E.C.1.

Victoria.—GARAGE.—Mr. Claude Grahame-White is responsible for a scheme whereby a garage eight stories high and spacious enough to accommodate 1,000 cars is to be erected in Gillingham-street, S.W. Mr. S. Gordon Jeeves, F.R.I.B.A., Hanover-square, W.1, is the architect. The plan provides for shops all round the main hall.

Wandsworth.—FACTORY.—A large three-story building, with a superficial floor area of about 80,000 sq. ft., is to be erected at the Columbia Gramophone Company's works, at Bendon Valley, S.W.18. The builders are Messrs W. H. Lorden & Co., Ltd., 107, Trinity-road, Wandsworth, S.W.17. The architect is Mr. W. M. Marcus, 29, New Bridge-street, E.C.4.

Watford.—REBUILDING.—In connection with the paragraph which appeared in our last issue under this heading, we have received a letter from Messrs. Elcock & Sutcliffe, FF.R.I.B.A., 21, Northumberland-avenue, W.C.2, stating that they prepared the drawings and specification for Messrs. Harry Neal, Ltd., for shops in High-street, Watford, which abutted on the old "Compasses" Inn. Then they prepared a scheme incorporating "The Compasses," rebuilt in keeping with the design for the shops. This Mr. Neal put before Messrs. Benskin's (Watford) Brewery Co., who agreed that Messrs. Neal should erect the shell and top floor to Messrs. Elcock & Sutcliffe's designs, and for their architect, Mr. Musman, to fit out the ground and first floors. The building is being erected to Messrs. Elcock & Sutcliffe's drawings, and the whole of the steelwork drawings have been prepared by Messrs. Archibald Dawnay, in conjunction with them.

Wimbledon.—HALL.—Excavations for a new billiard hall in Hayden-road, S.W.19, are being carried out by Messrs. James Burgess and Son, Wycliffe-road, Wimbledon, S.W., who have been awarded the building contract. The steelwork will be erected by T. C. Jones and Co., Ltd. The plans have been prepared by Mr. E. G. Cole, F.R.I.B.A.

NEW CINEMAS

A syndicate under the control of Sir Oswald Stoll proposes a new entertainment centre in St. John's-lane, Liverpool. A cinema to hold 3,000, a restaurant, winter garden and dance hall are included in the scheme. Mr. F. G. M. Chancellor, F.R.I.B.A., of Messrs. Frank Matcham and Co., 21, Beak-street, W.1, has designed the plans. Yet another Liverpool cinema is proposed in Overton-street, Liverpool.

A new company, Northern Picture Houses, Ltd., have acquired a site in Inverness for a new cinema.

Messrs. A. Snapes, B. Cramer and A. L. Ward have secured a site for a new cinema at Clayton, Manchester.

The Pinner Cinema Co., Ltd.—directors, C. W. Topham and J. Maxwell—have been registered as a public company with £30,000 capital, to erect a cinema, music-hall, skating rink and dance hall in Pinner-road, Pinner.

The contract for the new cinema to be built in High-street, Brierley Hill, Worcestershire, has been let to Messrs. G. Mobbs, of Birmingham. Mr. Stanley Griffiths, of High-street, Stourbridge, is the architect.

Messrs. Drury and Gomershall, Imperial Buildings, Oxford-street, Manchester, are the architects for a new cinema at Wilbraham-road, Manchester, first given in our issue for August 24.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ayisham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brumyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

For rates of wages in the Building Trade in Scotland, see page 405.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations :—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

SEPTEMBER 10.

Abingdon.—Convenience.—Overground public convenience in the Cattle Market, for T.C. B.S., Abbey House. Dep. £1 1s.

Arundel.—Houses.—10, on Council's estate at Priory-rd., for U.D.C. G. A. Gates, S.

Belfast.—Premises.—In King-st. and Castle-st., for B. O'Kane. C. MacAlister, architect, 12, Sussex-place.

Blaenau Festiniog.—Alterations.—To central premises, for Blaenau Festiniog Co-operative Society, Ltd. Architect's Department of the Co-operative Wholesale Society, Ltd., 1, Balloon-st., Manchester. Dep. £1 1s

Braunton.—Bungalow.—For W. A. Buckingham. Friend & Kelly, L.R.I.B.A., chartered architects, Barnstaple.

Devon.—Houses.—Avonwick, house for roadman; Ipplepen, Park Hill, two houses for small holders; Loxbeare, Calverleigh, house for roadman; Malborough, pair of houses for roadman and small holder; South Brent, house for small holder; Stockland; Hornshayes Farm, house for small holder; Ugborough, house for roadman; for C.C. County Architect, 97, Heavitree-rd., Exeter.

Dublin.—House.—Dwelling-house and business premises, at Oldtown, Co. Dublin, for Miss Corway. F. P. Russell, architect, 7, D'Olier-st., Dublin, C.5. Dep. £1 1s.

Dublin.—Store.—Store at 13 and 14, City Quay, Dublin, for T. Heiton & Co., Ltd. Morris & Kavanagh, quantity surveyors, 68, Harcourt-st., Dublin. Dep. £3 3s.

Gretton.—Distempering.—Also painting large room at Old Schools. J. H. Clark, secretary, Gretton.

Halifax.—Building.—Sub-station at Victoria Cattle Market, Hanson-lane, for C.B. B.E. Dep. £1 1s.

Holborn.—Flats.—Erection and completion of 15 working class flats in Betterton-st., W.C.2. J. E. Parr, B.S., Town Hall, High Holborn, W.C.1. Dep. £2 2s.

Hulbrook.—Bridge.—Rebuilding and strengthening the masonry spandril walls of the Hulbrook Bridge, for the W.R.C.C. West Riding Surveyor, County Hall, Wakefield. Dep. £1.

Kilnhurst.—Fencing.—Brick wall and unclimbable iron fencing to additional land at Swinton Kilnhurst Council school, for West Riding E.C. Education Department, County Hall, Wakefield.

London, W.—Dwellings.—Erection of 540 on the St. Quintin Park site, for the Sutton Dwellings Trust. Messrs. Henry Tanner, architects, 3, Hanover-square, W.1, or of the surveyors, Widnell & Trollope, Broadway-court, Broadway, Westminster, S.W.1. Dep. £10 10s.

Manchester.—Building.—Disinfecting station, garage, house, etc., adjoining Monsall hospital, for T.C. City Architect. Dep. £1 1s.

Methley.—Fencing.—Unclimbable iron fencing to additional land at Methley Mickletown Council school, for West Riding E.C. Education Department, County Hall, Wakefield.

Middlesex.—Re-decoration.—Of the exterior of the Institutions at London-rd., Ashford, for the Guardians, Staines Union. J. H. Tyars, architect to the Board, 28, Victoria-st., Westminster, S.W.1.

Middlesex.—Refrigerating Plant.—Installation of a refrigerating plant and the installation of an existing room to be used as a cold chamber at the Institution, London-rd., for the Guardians, Staines Union. Master of the Institution, Stanwell-rd., Ashford.

Plymouth.—Painting, etc.—At Scattered Homes, for B.G. W. H. Davy, clerk, Greenbank-rd.

Rawtenstall.—62 non-parlour type houses at Lower Carr Farm estate, for T.C. B.S. Dep. £2 2s.

Royston.—Painting, etc.—Royston Working Men's Club, Church-st. A. Parks, secretary.

Salisbury.—Extensions.—To Working Men's Club and Institute, Wilton-rd. A. M. Underwood, architect, Stratford-rd. Dep. £2 2s.

Sandwich.—Houses.—6 parlour type and 20 non-parlour type houses at Polder's-av., Boatman's Hill, for T.C. Wm. R. Moultrie, Acting Borough Surveyor. Dep. £2.

Stoke-on-Trent.—Sub-station.—At Strongford works, for T.C. City Sewage Engineer, Leek-rd.

Sunderland.—Construction.—Of a quay wall at the Hudson Dock, South, Sunderland, for the River Wear Commissioners. F. Humble, Harbour and Dock Offices, St. Thomas-st., Sunderland. Dep. £10.

Wombwell.—Installation of low pressure hot water installation at new Middle school, for West Riding E.C. Education Department, County Hall, Wakefield.

SEPTEMBER 11.

Basingstoke.—Mental Hospital (subject to the necessary sanctions being obtained).—Of 8 cottages (4 parlour type and 4 non-parlour type), for the Committee of the Park Prewett Mental Hospital. H. Spooner, Clerk, P. H. Mental Hospital, Basingstoke. Dep. £1 1s.

Billingham.—Houses.—75 dwelling-houses on Clarence-rd site, Haverton Hill-on-Tees, for U.D.C. Kitching & Archibald, architects, 21, Albert-rd., Middlesbrough.

Bushey.—Pumping Station.—At Hartsbourne Manor estate, for U.D.C. E. E. Ryder, E. and S. Dep. £2 2s.

Carrick-on-Shannon.—Building.—New out-offices, stables, etc., at Marist Convent. V. Kelly, architect, 4 and 6, Grafton-st., Dublin.

Carshalton.—Heating.—Remodelling and extension of heating apparatus at Council offices, The Grove, for U.D.C. C. P. Ingram, Estates Manager.

Dewsbury.—Alterations to police cells, in Town Hall, for C.B. H. Dearden, A.R.I.B.A., B.S.

Dewsbury.—Casual Wards.—New casual wards at Staincliffe Institution, for the B.G. W. Hanstock and Son, architects, Branch-rd., Batley.

Dewsbury.—Storeroom.—In Town Hall, for C.B. H. Dearden, A.R.I.B.A., B.S.

Essex.—Elementary School.—Erection of, at Braintree, to accommodate about 250 scholars. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £2 2s., to F. H. Owers, County Accountant, Duke-st., Chelmsford.

London.—Painting.—At the Admiralty, Whitehall, S.W., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Manchester.—Painting.—Exterior of Rose Hill Convalescent Home, Longley-lane, Northenden, near Manchester, for B.G. E. Hargreaves, Superintendent of Works.

Newton Abbot.—Houses.—32 at Kingsteignton, for the R.D.C. B. H. Palmer, L.R.I.B.A., 11, Union-st., Newton Abbot.

Nottingham.—Building.—At Woodthorpe Grange Park, Sherwood, for T.C. T. Wallis Gordon, City E. & S. Dep. £2.

Rosslare.—Additions.—To station buildings, at Rosslare Strand, for Great Southern Railways. J. F. Sides, chief engineer, Broadstone Station, Dublin. Dep. £1 1s.

Stockton-on-Tees.—Alterations.—To premises in Prince Regent-st., for T.C. B.E. Dep. £1 1s.

Stretford.—School.—In Stretford-rd., Old Trafford, for E.A. Percy Howard, A.R.I.B.A., 88, Mosley-st., Manchester. Dep. £2 2s.

West Derby.—Lavatories.—At Smithdown-rd. Institution, for B.G. E. B. Bailey, L.R.I.B.A., 9, Cook-st., Liverpool.

Wexford.—Additions.—Alterations and additions to Loreto Convent, Wexford, for Rev. Mother Superior. T. J. Cullen, architect, 25, Suffolk-st., Dublin. Dep. £2 2s.

SEPTEMBER 12.

Ballycastle.—School.—Technical school, for North Antrim Regional E.C. A. M'Master, architect, Ballymoney, Co. Antrim. Dep. £1 1s.

Bournemouth.—Pavilion.—At Knyveton-gardens, for T.C. F. P. Dolamore, B.E. Dep. £1 1s.

Carnforth.—School.—Sunday school at Methodist Free Church, Carnforth. R. Williams, Chapel Street, St. Just.

Clane.—Schools.—New schools at Staplestown, and reconstruction of Convent and Boys' school in Clane. Rev. L. J. Kehoe, P.P., Clane, Co. Kildare.

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Littlehampton.—Houses.—20, on site at rear of Gloucester-rd. and abutting on to Maxwell-rd., for U.D.C. L. G. Dashper, S.

Luton.—School.—Modern school for girls, for the Bedfordshire C.C. S. C. Parrott, architect, 4, George-st. West, Luton. Dep. £2 2s.

Manchester.—School.—Erection of Gorton Aspinal Municipal school, for E.C. H. Dunks, Acting Town Clerk. Dep. £2 2s.

Manchester.—School.—Erection of Birchfields-rd. Municipal school, for E.C. H. Dunks, Acting Town Clerk. Dep. £2 2s.

Manchester.—Stables.—Stables, garage, etc., at Claremont-rd. Cleansing Depot, Rusholme, for T.C. City Architect. Dep. £1 1s.

Rossington.—Installation.—Of electric light at Rossington New Middle school, for West Riding E.C. Education Department, County Hall, Wakefield.

Southmolton.—Houses.—4 parlour type and 4 non-parlour type, at Cannington, Witheridge, adjoining the main road, for R.D.C. C. N. B. Willey, Joint Clerk of the Council, 7, East-st. Dep. £2 2s.

Stoke-on-Trent.—Repairs.—To five houses at Longton, for the City Council. Town Clerk, Town Hall, Stoke-on-Trent.

Worcester.—Housing Schemes.—No. 1: 104 at Brickfields-rd. site; No. 2: 78 at Tolladine-rd. site, for the Corporation of Worcester. W. Ransom, M.Inst.C.E., C.E., Guildhall.

SEPTEMBER 13.

Bexhill.—Roof.—Workshop and roof over gas purifiers, at gas works, Ashdown-rd., for Gas Department. B.S. Dep. £1 1s.

Glasgow.—Slating.—Of 30 Additional houses at Possil Housing Scheme, for T.C. D. Stenhouse, T.C.

Stockton-on-Tees.—Houses.—Erection of 178 on the Blue Hall estate, Norton, for the Corporation. Hays & Gray, architects, Wingate, Co. Durham.

Teddington.—Painting.—At the National Physical Laboratory, Teddington, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Uxbridge.—Lavatories.—Public lavatories, Windsor-st., for U.D.C. W. L. Eves, F.R.I.B.A., 58, High-st.

SEPTEMBER 14.

Caterham.—Depot.—Additional buildings, comprising cart sheds, garages, forge, engine house, etc., at Council depot, Park-rd., for U.D.C. District Surveyor. Dep. £1 1s.

Guildford.—Conveniences.—In Sports Ground, Woodbridge-rd., for T.C. J. W. Hipwood, B.E.

Guildford.—Shed.—Tin baler shed, in timber and breeze blocks, at Destructor Works, for T.C. J. W. Hipwood, B.S.

Headington (Oxon).—Houses.—Erection of 60 houses on the "Barton Estate," viz., 30 parlour-type and 30 non-parlour-type, for the U.D.C. Clerk, Council Offices, Stile-rd. Dep. £1 1s.

Heston and Isleworth.—Houses.—For (1) Worton-rd. estate, six pairs parlour houses, seven blocks of four non-parlour houses; (2) James-st. estate, extension of road, four blocks of four houses, one block of three houses, one pair of houses; and (3) Myrtle-rd. estate, two blocks of four non-parlour houses; for U.D.C. J. G. Carey, E. & S. Dep. £2 2s.

London (Bethnal Green).—Heating, etc.—Warming ventilating, hot and cold water supply services, etc., at the public baths and washhouses in course of erection at Old Ford-rd., Bethnal Green, for the B.G. B.E. and S., Town Hall, Bethnal Green, E.2. Dep. £2 2s.

Newcastle-on-Tyne.—Telephone Exchange.—Erection of, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

Teddington.—Buildings.—New physics building at National Physical Laboratory, Teddington, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

SEPTEMBER 15.

Exeter.—Extension to tramway depot, for T.C. City Architect, 2, Southernhay West. Dep. £2.

Farnham and Hartley Wintney.—Building.—For (1) builder's work necessary for preparation for and making good after installation of a hot water heating system in Infirmary at District schools, Crondall, and (2) installation of said heating system, for District Schools Committee. G. F. Wright, clerk. Dep. £2 2s.

Harrow-on-the-Hill.—Painting.—Also decorating work at Isolation Hospital, Pinner-lane, for U.D.C. J. P. Bennetts, E. and S.

Hereford.—Building.—Discharge block and two sculleries, at Infectious Diseases Hospital, Tupsley, for T.C. City E.

Manchester.—School.—Erection of Hough-rd. Municipal school, Withington, for E.C. H. Dunks, Acting Town Clerk. Dep. £2 2s.

Manchester.—School.—Erection of Kingsway Municipal school, Burnage, for E.C. H. Dunks, Acting Town Clerk. Dep. £2 2s.

Plymouth.—Steelwork.—Steel roofing, etc., to bitumen boilers, Prince Rock depot, for C.B. P. Wilberley, Borough Engineer, Surveyor and Architect. Dep. £1 1s.

SEPTEMBER 17.

Athy.—Residence.—Sundry structural alterations and improvements at Christian Brothers' Residence, Athy, Co. Kildare, for Rev. Brother P. V. Dolan, Superior. G. L. O'Connor, F.R.I.B.A., architect, Mansion House-chambers, 27, Dawson-st., Dublin.

***Aylesham.**—Central School.—Erection of, for the Kent Education Committee. Director of Education, Springfield, Maidstone, Kent. Dep. £2 2s.

Belfast.—Building.—Post Office, garage, workshops, etc., at West-st., Millfield, for Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall Square West, Belfast. Dep. £1.

Belfast.—Building.—Storm water pumping station, including pump wells, channels, discharge culvert, and superstructure, and other works in connection therewith, for C. B. A. Brookes, F.S.I., chartered surveyor, 17, Chichester-st. Dep. £5 5s.

Burma.—Foundations.—Sinking of bridge pier foundations in the River Irrawaddy at Sagaing, Burma, for Burma Railway Co., Ltd. R. G. McGechie, secretary, 199, Gresham House, Old Broad-st., E.C.2.

Camelford.—House.—Ten-roomed house at Trevia. H. Pethick, Mill House.

Croydon.—Shops and Dwellings.—Erection of one block of 8 shops and dwellings, for the C.B. The Town Clerk, Town Hall, Croydon. Dep. £3 3s.

Hampton.—Fencing.—1,100 lin. yds. of unclimbable iron fencing, gates, etc., at Recreation Grounds, for U.D.C. S. H. Chambers, S.

Killanny.—Building.—New stone-built entrance to new church, Killanny, near Carrickmacross, for Rev. T. Brennan, P.P. R. M. Butler, F.R.I.B.A., architect, 23, Kildare-st., Dublin.

Norwich.—Shops.—14 shops, with flats over, on Drayton housing estate, for T.C. J. S. Bullough, City Engineer. Dep. £5.

Nottingham.—Heating.—And hot water supply plant, at Nurses' Home, Bagthorpe Infirmary, Hucknall-rd., Nottingham, for the Guardians of the Poor. T. J. R. Kiernan, B.Sc., M.Inst.E., 17, Victoria-st., Westminster, S.W.1. Dep. £5 (B.E. note).

Nottingham.—Hospital.—Erection of Children's Hospital, Bagthorpe Infirmary, Hucknall-rd., Nottingham, for B.G. Starr & Hall, 12, Victoria-st., Nottingham. Dep. £5 note.

Nottingham.—Painting.—Interior cleaning and painting of Scattered Homes and Central Home, Hartley-rd., for T.C. J. A. Battersby, clerk.

Paulton.—Heating.—Installing 134 electric lighting and heating points at Isolation Hospital, for Bath, Clutton, Midsemer Norton and Radstock Joint Hospital Committee. A. J. Pictor, F.R.I.B.A., 14, Queen-sq., Bath.

Paulton.—Hospital.—Isolation Hospital at Paulton, near Bristol, comprising administration, scarlet fever, diphtheria, observation, laundry and disinfecting blocks, together with roads, drains, fences, etc., for Bath, Clutton, Midsomer Norton and Radstock Joint Hospital Committee. A. J. Pictor, F.R.I.B.A., 14, Queen-sq., Bath. Dep. £2 2s.

***Penge, S.E.**—Secondary School for Boys.—Erection of, for the Kent Education Committee. Director of Education, Springfield, Maidstone, Kent. Dep. £2 2s.

Pontypridd.—Extensions.—Also alterations to casual wards of Central Homes, for B.G. W. Spickett, clerk. Dep. £2 2s.

Shardlow.—Houses.—Additional non-parlour type houses in their area:—Spondon, 112; Sandiacre, 24; Chellaston, 6; Draycott, 20; Ockbrook, 34; Sawley, 4, for R.D.C. J. S. Wooddisse, S., 4, Full-st., Derby. Dep. £2 2s.

Southampton.—Parapets to Bridges.—Erection of ashlar and moulded artificial stone parapets to bridges and approaches at Totton-Redbridge Diversion, for the Southampton B.C. W. J. Taylor, City Surveyor, The Castle, Winchester. Dep. £2 2s. by cheque to the Hampshire C.C.

SEPTEMBER 18.

Bootle.—Convenience.—Ladies' and gentlemen's convenience, in north-east corner of North Recreation Ground, near junction of Stanley-rd. and Knowsley-rd., for C.B. B.E.

Bootle.—Houses.—100, in pairs, on new roads, Site No. 2, Park-lane and Orrell-rd., for C.B. B.E. & S. Dep. £2 2s.

Brighton.—Improvements, etc.—Formation of six cubicles in large dormitory of the 1 receiving home at Warren Farm schools, for D.C. E. Wallis Long, architect, 6, Old Steine.

Central Scotland.—Electricity Scheme.—Electricity sub-stations at Clydes Mill, Dalmarnock and Bonnybridge, for Electricity Board. J. R. Brooke, secretary, Trafalgar-buildings, 1, Charing Cross, London, W.C.2. Dep. £2 2s.

Cork.—Church.—New Church of "Christ King," at Evergreen-rd., Turner's Cross, for Rev. D. Conalan, D.D., Lord Bishop of Cork. J. R. Boyd Barrett, A.R.I.B.A., 61, South Mall. Dep. £5 5s.

Epsom.—Extensions.—To the buildings and other works at the Electricity Works, for the Epsom U.D.C. A. C. Williams & Pettett, architects, Reid's Building, Ashley-rd., Epsom. Dep. £2 2s.

Leeds.—Building.—For (*a*) alterations to kitchen at mental wards; (*b*) two iron emergency staircases at the mental wards, at St. James' Hospital, Beckett-st., for T.C. James H. Ford, clerk, 11, South-parade.

Leeds.—Painting.—Outside at Institution, Beckett-st., for B.G. Jas. H. Ford, clerk, 11, South-parade.

Reading.—Garage.—At Corporation Depot, Abattoirs-rd., for C.B. B.S. Dep. £2 2s.

Richmond, Surrey.—Conveniences.—In the Terrace Gardens, Richmond-hill, for T.C. B.E., Town Hall, Richmond, Surrey. Dep. £1 1s.

Wealdstone (Middlesex).—Houses.—Erection of 164 houses on the Elmgrove-rd. housing site, for the U.D.C. Surveyor to the Council, Council Offices, Peel-rd., Wealdstone. Dep. £2 2s.

SEPTEMBER 19.

Fife.—Additions.—To Elie public school, for E.C. G. Sandilands, Architect and Master of Works, Education Offices, Kirkcaldy. Dep. £1 1s.

Glasgow.—Exchange.—Telephone exchange at Muirend, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh. Dep. £1 1s.

Little Thurrock.—Houses.—Erection of 30 houses for the Orsett R.D.C. Engineer and Surveyor, Council Offices, Palmers-av., Grays, Essex.

Mansfield.—Houses.—Erection and completion of 53 houses in pairs and blocks of three, four and five, for the T.C. Waude Thompson, B.E. & S., Market-st., Mansfield. Dep. £2 2s.

Mansfield.—Shops and Offices.—Erection of 2 shops and offices, for the T.C. Waude Thompson, M.Inst.C.E., Borough Engineer and S., Market-st., Mansfield. Dep. £2 2s.

Nottingham.—Houses.—1,200 of small type on Aspley-lane site, for T.C. T. Cecil Howitt, Architect, 58-59, Long-row. Dep. £1.

Richmond Park.—Rebuilding portions of the boundary wall, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

Wakefield.—Annexe.—Sanitary annexe at Wakefield Mental Hospital, for West Riding Hospitals Mental Board. W. E. H. Burton, architect and engineer. Dep. £1.

SEPTEMBER 20.

Bangor.—Offices.—For gas undertaking in High-st., for T.C. B.S. Dep. £1 1s.

Durrington.—Centre.—Special subjects centre at Council school, for Wilts E.C. T. Walker, C.A., Trowbridge. Dep. £1 1s.

Ely.—Wards.—Isolation wards at Poor-law Institution, for B.G. F. W. Green, clerk, 11, Lynn-rd.

Hartley Wintney.—Houses.—Ten semi-detached cottages at Coldharbour-lane, Hawley, for R.D.C. E. H. Milburn, clerk. Dep. £1.

Hebden Bridge.—Post office and Telephone Exchange.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

Tunbridge Wells.—Houses.—Sixteen pairs of two-bedroomed houses proposed to be erected in Holmewood-rd., for T.C. W. H. Maxwell, Borough and Water Engineer.

SEPTEMBER 21.

Eastbourne.—Alterations.—Also additions to Grove-rd. Fire Station, for C.B. L. Roseveare, B.E., & S. Dep. £1 1s.

East Malling.—Fruit Storage Testing Station.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

Remenham.—Installation.—Of electric lighting at Church and Parish Hall, for Parish Council. S. C. Rees-Jones, chairman, Remenham Church, Henley-on-Thames.

Rochdale.—Alterations.—To the old Post Office, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

SEPTEMBER 22.

Enniskillen.—Building.—New buildings at Convent of Mercy, Enniskillen. J. Donnelly, architect, Enniskillen.

Farnborough.—Building.—Stables, cartsheds and stores, together with accessory works, in connection with proposed Town Depot at Sycamore-rd., for U.D.C. J. E. Hargreaves, S.

***Smethwick.**—New Distributing Station and Workshops.—Erection of, for the County Borough Gas Dept. Engineer and Manager, Gas Works, Rabone-lane. Dep. £2 2s.

SEPTEMBER 24.

Ellesmere Port.—Houses.—232 semi-detached, on Grange Farm estate, for U.D.C. T. W. Francis, clerk. Dep. £5 5s.

Guildford.—Cottages.—Eight non-parlour type, at East Horsley, for R.D.C. J. W. Wilton, S. Dep. £2.

***Whitby.**—Reinforced Concrete Roof.—Construction of, to new bathing pool, for the U.D.C. F. H. Wood, P.A.S.I., Gloucester House, 19, Charing Cross-rd., London, W.C.2. Dep. £2 2s.

SEPTEMBER 25.

Kilkenny.—Houses.—17 cottages at Kenny's Well, and 13 at Stephen's-st., for Corporation. R. C. Murphy, B.S. Dep. £2.

SEPTEMBER 26.

***Hackney, E.5.**—Maisonettes.—Erection of 80, for the Borough Council. Percival Holt, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Hackney, E.8. Dep. £10.

SEPTEMBER 28.

***Wantage.**—School.—Erection of, for the Berkshire Education Committee. W. C. F. Anderson, Education Secretary, Shire Hall, Reading. Dep. £2 2s.

OCTOBER 1.

***Leigh-on-Sea.**—Public Conveniences.—Erection of, for the C.B. of Southend. R. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Dep. £2.

NO DATE.

Aberystwyth.—Buildings.—Waiting-room and conveniences on car parking ground, Smithfield-rd., for Corporation. B.S., Smithfield-rd. Dep. £1 1s.

Crossgar.—Hall.—Church hall in connection with Lissara Presbyterian Church. Munce & Kennedy, 11, Wellington-place, Belfast.

Dunston.—Hall.—Church hall. Joseph Potts & Son, architects, 57, John-st., Sunderland. Dep. £3 3s.

Horbury.—Bungalows.—Two bungalows, Green Park-av., for U.D.C. W. Sugars, E. and S.

Keighley.—Renovation.—In connection with registrar's house at cemetery, for T.C. Borough Architect. Dep. £1.

Knockaloe (Ireland).—Alterations.—Also decorations of farm house, for Isle of Man Board of Agriculture. J. E. Teare, architect, 46, Athol-st., Douglas.

Newton Abbot.—Bakery.—Model bakery at King-st., for Co-operative Society, Ltd. R. A. Rogers, Architect and Surveyor, 7, Union-st.

Redcar.—Memorial Porch.—At Wesleyan Church, for Memorial Committee. W. A. Kellett, L.R.I.B.A., chartered architect, Lloyds Bank-chambers, Barnard Castle.

Staincross.—Lighting.—Electric lighting and fittings for Staincross Primitive Methodist Church. F. Truelove, New-rd.

Thornley.—Halls.—For Miners' Welfare Committee. Hays & Gray, FF.R.I.B.A., Wingate, Co. Durham. Dep. £1 1s.

MATERIALS, etc.

SEPTEMBER 10.

London.—Materials.—Building and ironmongery of all kinds, for B.G., Parish of St. Mary, Islington. Albert King, clerk, Guardians' Offices, St. John's-rd., Upper Holloway, N.19.

Middlesbrough.—Highway Materials.—For C.B. S. E. Burgess, B.E. & S.

Stoke-on-Trent.—Highway Materials.—For T.C. City Surveyor.

Yorks.—Works and Materials.—For War Dept., at Beverley (Depot Barracks) and Selby (Magazines). Commanding Royal Engineer, 13, Wenlock Terrace, York.

SEPTEMBER 11.

Lambeth.—Food Containers, Vessels, etc.—Supply of, at the Lambeth Hospital, Brook-st., Kennington, for the Lambeth Guardians. At above offices. Dep. £2.

Leatherhead.—Tarred Slag.—For U.D.C. S. R. Drake, S.

SEPTEMBER 12.

Bromley.—Highway Materials.—For R.D.C. L. O. Wall, clerk.

SEPTEMBER 14.

Darlington.—Highway Materials.—For C.B. B.S.

India.—Steel.—Schedule 3 118 tons steel, mild, bright drawn, round and hexagonal, for India Store Dept., Belvedere-rd., S.E.1. Payt. 5s.

SEPTEMBER 15.

Edmonton.—Highway Materials.—For U.D.C. Engineer.

SEPTEMBER 17.

Bradford.—Building Materials.—For T.C. E. J. Sutcliffe, Gas Engineer.

Edmonton.—Builder's Materials.—For B.G. E. Ridley, clerk, 77, Bridport-rd.

SEPTEMBER 19.

London.—Builder's Materials.—For Woolwich B.G. A. Holder, clerk.

SEPTEMBER 20.

North Surrey.—Builder's Materials.—For School District. W. Eric Jackson, clerk to Managers, 22, Northwood-rd., S.E.23.

SEPTEMBER 21.

Birkenhead.—Builders' Materials, etc.—For Mersey Railway Co. J. Shaw, general manager and secretary, Central Station.

SEPTEMBER 22.

Birkenhead.—Paints, etc.—For B.G. S. R. Carter, clerk, Conway-st.

SEPTEMBER 26.

Plymouth.—Cement.—For C.B. R. J. Fittall, T.C.

ENGINEERING, IRON AND STEEL.

SEPTEMBER 10.

Dublin.—Steelwork.—Structural steelwork and roof covering of proposed store at Nos. 13 and 14, City Quay, Dublin, for Thos. Heiton & Co., Ltd. Morris & Kavanagh, quantity surveyors, 68, Harcourt-st., Dublin. Dep. £2 2s.

Hulbrook.—Rebuilding.—Also strengthening masonry spandril walls of bridge, for West Riding C.C. West Riding Surveyor, Wakefield. Dep. £1.

West Riding.—Bridges.—For (1) reconstruction in ferro-concrete of small culvert known as White Culvert, which carries York and Boroughbridge main road over Whixley Cut, Great Ouseburn; (2) widening with steel hoists and concrete to Hunsworth Bridge which carries a district road known as Hunsworth-lane over Balm Bill Beck, Spenborough; and (3) widening in steelwork at south-east corner of Castleford Bridge which carries Hook Moor branch of Leeds and Barnsdale main road over River Aire, Castleford, for C.C. West Riding Surveyor, Wakefield. Dep. £1 each.

West Riding.—Widening.—Reconstruction and widening of Tutt or Metcalfe bridge on Boroughbridge and Ferrybridge main road, within the Rural District of Great Ouseburn, for C.C. C.S., Wakefield. Dep. £1.

SEPTEMBER 11.

Liverpool.—Steelwork.—For bridge over River Alt, for T.C. W. Moon, T.C.

SEPTEMBER 13.

Kingsclere.—Bridge.—Small bridge at Axman's Ford, for R.D.C. S.

SEPTEMBER 17.

Chard.—Waterworks.—6,550 yds. of 5 in., 4 in., and 3 in. cast iron water mains, with necessary valves, hydrants, etc., motor and pump house, reservoir, electric motors, and well pumps, and other works, for Corporation. S. R. Lowcock, 6, Queen Anne's Gate, S.W.1. Dep. £5.

Burma.—Steelwork.—607.6 tons of structural steelwork, for Railway Company, Ltd. R. G. McGechie, secretary, 199, Gresham House, Old Broad-st., London, E.C.2.

Denbighshire. — Improvements. — Widening in masonry of, and improvement of, the road over and approaches to culvert known as Pont-y-Cacwn, near Llanferres, for C.C. E. A. Evans, County Engineer, 46, Clwyd-st., Ruthin. Dep. £2 2s.

Haverfordwest. — Reservoir. — Mass-concrete covered service reservoir of about 180,000 gallons capacity, and about 1,000 lineal yards of 6 in. diameter cast-iron water mains, for the T.C. Thomas & Morgan & Partners, 23, Gelliwastad-rd., Pontypridd. Dep. £5 5s.

Madras.—Steelwork.—95 tons structural steelwork for engine paint and valve shop, together with asbestos sheeting, patent glazing, C.I. piping, etc., etc., for Madras and Southern Mahratta Railway Co., Ltd. Directors, 25, Buckingham Palace-rd., S.W.1.

SEPTEMBER 20.

Bishopthorpe.—Sewerage.—Providing and laying of 1,500 lin. yds. of 6 in. stoneware pipe sewers; together with necessary manholes, flushing manholes, storm overflow, ventilators, etc.; construction of a brick pumpwell and pump house, and installation therein of duplicate pumping plant, and construction of sewage disposal works, consisting of settling tanks, filter, etc., in mass concrete, at Copmanthorpe, for R.D.C. Fairbank & Son, engineers, Tudor House, Stonegate, York. Dep. £2 2s.

SEPTEMBER 21.

London.—Roofing.—For platform roofing, for South Indian Railway Co., Ltd. Robert White & Partners, consulting engineers, 3, Victoria-st., Westminster, S.W.1.

SEPTEMBER 22.

Malmesbury.—Reconstruction.—Of Cowbridge Bridge, near Malmesbury, for Wilts C.C. H. S. Ganderton, C.S., Trowbridge. Dep. £2 2s.

SEPTEMBER 24.

Antwerp.—Bridges.—Two bridges over entrance between Bassin Kattendyk and Bassin aux Bois, for Corporation. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 6552.)

Manchester.—Widening.—Of bridge at St. Werburgh's-rd., Chorlton-cum-Hardy, over Cheshire Lines Railway, for Corporation. City E. Dep. £3 3s.

ROAD, SEWERAGE, AND WATER WORKS.

SEPTEMBER 10.

Chester.—Road Reconstruction.—Reconstruction with tar macadam on pitched foundation of Water Tower-st., for T.C. Charles Greenwood, Assoc.-M.Inst.C.E., C.E. and S. Dep. £1 1s.

Colne.—Reconstruction.—Taking up tramtrack and reconstruction of main road from Rock Hotel, Trawden, to near Standroyd Mill, Colne, for Lancashire C.C. W. H. Schofield, A.M.Inst.C.E., County Offices, Preston.

Heston and Isleworth.—Making-up.—Of Springwell-rd (part 1), for U.D.C. J. G. Carey, E. and S Dep. £2 2s.

Loughborough.—Sewers.—Laying of about 620 yds. of 12 in. and 225 yds. of 9 in. stoneware pipe sewers in connection with Bottleacre development, for T.C. W. Granger, B.S. Dep. £2 2s.

Worsborough.—Making-up.—Back Sheffield-rd., between Hay Green-lane and Wakefield and Sheffield main road, Birdwell, for U.D.C. T. Shield, E. & S. Dep. £1 1s.

SEPTEMBER 11.

Bushey.—Sewerage Works.—Erection of a pumping station and the construction of a 6-in. cast-iron pumping main at the Hartsbourne Manor estate, Bushey, for U.D.C. Ernest E. Ryder, E. and S., Council Offices, Bushey, Herts. Dep. £2 2s.

Carlisle.—Making-up.—Flagging, etc., at Greystone-rd. and Blackwell-rd., for T.C. Percy Dalton, A.R.I.B.A., 18, Fisher-st.

Enfield.—Making-up.—Of Queensway (part of), Ponders-end, Gilbert-st., Freezywater, and Walsingham-rd. (part of), Enfield, for U.D.C. H. R. Crabb, S. Dep. £2 2s.

Gateshead.—Paving.—For (1) Armstrong-st. West, (2) Victoria-rd. South from Lobley Hill-rd. to Armstrong-st., (3) Pensher-st., and flagging, etc., (4) Teviot-st., west side, part of, (5) Salkeld-gardens, for C.B. F. H. Patterson, B.E.

Mitcham.—Street Works.—Making up of Avenue-rd. and Beckway-rd., for U.D.C. Surveyor's Office, Broadway House, Lower Mitcham.

Southgate.—Reconstruction of carriageway at Green Lanes and Aldermans Hill, Palmers Green, for U.D.C. Council's Surveyor, R. Phillips, Town Hall, Palmers Green, N.13.

Southgate.—Sewers.—645 lin. yds. 9 in. patent stoneware pipes (foul sewer) 334 lin. yds. 12 in. stoneware pipes (surface water sewer); 729 lin. yds. 9 in. stoneware pipes (surface water sewer), in Waterfall-rd., for U.D.C. R. Phillips, S.

Weymouth and Melcombe Regis.—Road.—Preparing, providing and laying approx. 8,000 super yds. of asphalt roadway on Dorchester-rd., for T.C. W. A. Jamieson, B.S. and E.

SEPTEMBER 12.

Bilston.—Reconstruction.—Lifting and removal of approximately 1,542 lin. yds. of tramway tracks and laying of about 7,051 super yds. of two-coat bituminous asphalte, 4 in. thick, on concrete foundations; same for approximately 777 lin. yds. of tramway tracks, and laying of about 2,528 super yds. of 2 in. bituminous asphalte on concrete foundations; also 2,318 lin. yds. of tramway tracks, and laying of about 6,646 super yds. of tarred slag macadam, and 609 lin. yds. of tramway tracks and paving of about 1,667 super yds. of granite setts, on concrete foundations, for U.D.C. A. F. B. Sidwick, E. & S. Dep. £2 2s.

Brigg.—Main.—Supplying and laying about 6,000 lin. yds. of 6 in., 5 in., 4 in. and 3 in. cast-iron water mains, together with valves, fire hydrants, etc., in Burton-upon-Stather, for R.D.C. J. H. Haiste, E., Union Bank-chambers, Trinity House-lane, Hull. Dep. £2 2s.

Edinburgh.—Tar Macadam.—Laying of tar macadam at Chessels Court playground, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Hendon.—Making-up.—Of Grove-rd., Edgware, for R.D.C. H. W. Rackham, E. & S. Dep. £1 1s.

High Wycombe.—Repairs.—To roads, for R.D.C. S., 17, High-st.

Morley.—Resurfacing.—Two-coat asphalt surfacing of a length of 500 yards in the Leeds and Dewsbury Main-rd., for T.C. B.E. Office, Town Hall, Morley, nr. Leeds.

Southampton.—Extension.—Excavation, levelling, fencing, rubble walling, and other work incidental thereto, required in widening for about 180 yds. of London-Portsmouth road, for C.C. W. J. Taylor, C.S., The Castle, Winchester. Dep. £1 1s.

Wembley.—Sewers.—Construction of about 450 yds. of 36-in., 140 yds. of 33-in. and 620 yds. of 30-in. concrete tube surface water sewer, in Watford-rd., Sudbury, for U.D.C. Cecil R. W. Chapman, E. and S., Council Offices, Wembley, Middlesex. Dep. £2 2s.

Wycombe.—Repairs.—To roads, for R.D.C. S.

SEPTEMBER 14.

Consett.—Widening.—Reconstruction and widening of Cross-st., for U.D.C. T. Hutton, S. Dep. £2 2s.

Huntingdonshire.—Road.—Reinforced concrete road at St. Neots, for C.C. H. Leete, C.S., Walden House, Huntingdon. Dep. £5 5s.

SEPTEMBER 15.

Broadstairs and St. Peter's.—Resurfacing.—In St. Peter's-rd., Broadstairs, for U.D.C. Howard Hurd.

Glasgow.—Road.—Portion of Harmony-row, at Crossloan-rd., Govan, for Corporation. Director of Housing, 20, Trongate.

Wilton.—Main.—Laying approx. 1,000 yds. of 3-in. cast-iron water main in Bemerton, for R.D.C. A. H. Brain, engineer, The Manse. Dep. £2 2s.

Woodhey.—Making-up.—Of Oak-rd., Beech-rd., Elm-rd. and Ash-rd., Woodhey, for Bebington and Bromborough U.D.C. Surveyor.

SEPTEMBER 17.

Billericay.—Drainage.—Provision, laying and jointing of about 573 lin. yds. of 12-in. glazed stoneware pipe sewer, construction of manholes and other incidental works, in South Weald, near Brentwood, for R.D.C. Willcox & Raikes, engineers, 33, Gt. Charles-st., Birmingham. Dep. £2 2s.

Caterham.—Improvements.—In Buxton-lane, for U.D.C. H. R. Martin, District Surveyor. Dep. £2 2s.

Farnham.—Making-up.—Surface water sewerage, kerbing and making-up of Weydon Hill-rd., Farnham, about 220 yds. in length, for U.D.C. L. H. Starling, E. & S.

Poole.—Sewerage.—4½ miles of 8 in., 9 in. and 12 in. cast-iron and stoneware pipe sewers, together with manholes, etc., in districts of Stanley Green, Dorchester-rd. and Newtown, for T.C. E. J. Goodacre, B.E. Dep. £5 5s.

South Shields.—Making-up.—Of St. George's-av. (part), for C.B. J. Paton Watson, B.E.

SEPTEMBER 18.

Carmarthen.—Sewerage.—Laying about 1,425 lin. yds. 9 in. dia. pipe sewers, with manholes, flushing manholes, ventilating shafts, etc., in Tanerdy District, for T.C. G. L. Ovens, B.E. & S. Dep. £1.

Cheshunt.—Sewer.—654 yds. of 9 in. diameter stoneware pipe sewer, together with necessary manholes, lampholes and other works, in Cromwell-av., Dark-lane and Barrow-lane, for U.D.C. J. E. Sharp, E. & S. Dep. £2 2s.

Hailsham.—Extensions.—To sewer in Albert and Victoria-rds, Polegate, for R.D.C. W. O. Humphery, engineer.

Sutton and Cheam.—Making-up.—Of The Downsway, 500 lin. yds., 50 ft. wide (in asphalte); Devonshire-rd., 150 lin. yds., 40 ft. wide (in asphalte); Ridge-rd., 550 lin. yds., 50 ft. wide (in concrete), for U.D.C. Wm. Hedley Grieves, S. Dep. £3 3s.

Tottenham.—Levelling, etc.—Clearing, ploughing, levelling, and sowing with grass seed about 36 acres of land at Lordship Recreation Ground, for U.D.C. Engineer to the Council, Town Hall, Tottenham, N.15. Dep. £1.

SEPTEMBER 19.

London.—Paving.—Paving and forming roadway and footways of: (*a*) Shell-rd., Lewisham (part), area about 2,500 yds.; and (*b*) Pearfield-rd., Forest Hill, area about 2,800 yds., for Lewisham B.C. B.S.

SEPTEMBER 22.

Magor.—Improvements.—Road diversion near Bishton, 900 yds. in length and 20 ft. in width, for R.D.C. Thomas & Morgan & Partners, civil engineers, Pontypridd. Dep. £5 5s.

Magor.—Mains.—Provision and laying of about 3,700 yds. of 3 in. dia. cast-iron water mains, with various fittings, betwen Llanwern and Bishton, for R.D.C. Thomas & Morgan & Partners, civil engineers, Pontypridd. Dep. £5 5s.

Auction Sales Tenders. etc.

SEPTEMBER 12, and Following Day.

Kingsbury.—Charles R. Davis and Co. will sell at the yard and workshops, Kingsbury Works, Kingsbury-rd., Kingsbury, N.W.9, extensive Stock, Plant and Machinery of a Builder and Contractor. Auctioneer, 285, Borough High-st., S.E.1.

***South Ealing, W.5.**—Norbury Smith & Co. will sell on the premises, "The Woodlands," South Ealing-rd., building materials, fixtures and fittings. Auctioneers, 8, Conduit-st., W.1.

SEPTEMBER 13.

London.—Henry Butcher, Hall & Co. will sell by Order of Messrs. Foster & Dicksee, Ltd., surplus plant, stone-working and contractors' plant, Auctioneers, 63 and 64, Chancery-lane, W.C.2.

OCTOBER 1.

London.—Paving.—Wood block paving on reinforced concrete foundations, etc., in Commercial-rd., Peckham, S.E.15, for Camberwell B.C. W. Bell, B.E. & S.

OCTOBER 2nd and 3rd.

London.—Joseph Hibbard & Sons will sell first portion, without reserve, on premises of Electric Saw Mills, Victoria Park, E.9, at 1 o'clock each day, stock of hardwoods. Auctioneers, 15, Newington Green, Islington, N.16.

OCTOBER 16.

Pinner.—Hampton & Sons will sell (unless previously sold) freehold property, "The Hall" Estate, Pinner. Auctioneers, 20, St. James'-square, S.W.1.

AT EARLY DATE.

London.—Grant, Stevenson & Co. will sell residence at Wimbledon, in country surroundings. Stable, garage, buildings, etc. Auctioneers, Airspado House, Holland Park-av., W.11.

Public Appointments

SEPTEMBER 10.

Cambridge.—Tem. Qualified Architectural Assistant required in the County Architects' Dept., Cambridge. H. H. Dunn, F.R.I.B.A., City Architect, County Hall, Cambridge.

SEPTEMBER 22.

***Bradford.**—Architectural Assistant required by the City Architect. City Architect's Department, Town Hall.

CONTRACTS PLACED

Hayes.—PREMISES.—The Yiewsley and District Co-operative Society, Ltd., 31, High-street, have accepted the tender of the C.W.S. Works Dept., London, E.1, at £4,701, for the erection of their new branch premises. The plans have been prepared by Mr. L. G. Ekins, F.R.I.B.A., 99, Leman-street, E.1.

Jersey.—HARBOUR REBUILDING.—The tender of Sir Lindsay Parkinson & Co., Ltd., builders and contractors, of Shaftesbury-avenue, W.C., for improvements to St. Helier's Harbour, Jersey, has been accepted. The contract involves more than £250,000. The engineers are Coode, Fitzmaurice, Wilson & Mitchell, of Victoria-street, S.W.

Littlehampton. — HARBOUR REBUILDING. — Messrs. Bolton & Lakin, of Birmingham, have just secured a contract for rebuilding the harbour at Littlehampton, Sussex. The work will comprise a considerable amount of ferro-concrete and greenheart piling, and when completed will enable larger vessels to enter the harbour. The amount of the contract is approximately £57,000.

Northampton.—REBUILDING.—A contract for the rebuilding of the block of business premises at the corner of Market-square and Conduit-lane has been placed with Messrs. A. P. Hawtin and Co., Colwyn-road, Northampton. The architect is Mr. F. H. Allen, A.R.I.B.A., 26, Abingdon-street.

North Harrow.—BUILDING.—A contract for the building of the proposed "Headstone Hotel," near the railway station, has been placed with Messrs. A. and B. Hanson, Featherstone-road, Southall. The owners are Messrs. Watney, Combe, Reid and Co., Ltd., and the architects are Messrs. F. J. Fisher and Son, Bloomsbury-square, W.C.1. The cost is estimated at about £20,000.

Rugby.—REBUILDING.—The British Thomson-Houston Co. have placed a contract with Messrs. J. Parnall and Sons, Oliver-street, Rugby, for the rebuilding of their factory in Lower Hillmorton-road.

Stoke Poges.—CHURCH.—Stoke Poges Wesleyan Circuit are to build a new Wesleyan church and schoolroom. The contract is in the hands of Mr. J. W. Slatter, of Maidenhead, and the architect is Mr. W. W. Hopkins, A.R.I.B.A., of 56, King-street, Maidenhead.

Stowmarket. — FACTORY. — Messrs. Joseph Foster & Sons, Ltd., Preston and Blackburn, have just booked a £40,000 contract for the power-house installation for the new artificial silk factory now being built for the British Acetate Silk Corporation, Ltd., at Stowmarket.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

Acton.—To prevent flooding in The Vale, Acton, local Council is to spend £32,000 on engineering scheme.

Bicester.—Plans been approved by R.D.C. for alterations and additions to Church of England School at Fringford.

Blackpool.—Organisation of "Cinderella Club," Withy-grove, Manchester, acquired site of about 12 acres of land near Rossall to erect new seaside and convalescent home. Plans by A. Raingeley, A.R.I.B.A., architect, 4, Cathedral-gates, Manchester.

Bolton.—U.D.C. are to borrow £10,970 for 22 houses in Firlong-rd., Bolton-on-Dearne.—"Golden Lion" hotel, Gladstone-rd., Farnworth, is to be rebuilt. Plans prepared by Smith & Sons, architects, Central-chambers, Fold-st.

Bridlington.—B.G. proposing to make improvements to Institution. J. R. Earnshaw, architect, Kingsgate.

Bromsgrove.—B.G. passed plans for extensive alterations at Union Infirmary. Proposals include enlargement of nurses' accommodation and provision of an additional bedroom, erection of an operating theatre, a new day-room and an additional ward on men's side and provision of better nursery accommodation for children.

Burnley.—The 64 additional houses which Corporation propose to build on Stoops Farm estate are expected to cost £25,450.—Corporation are considering a scheme for erection of 40 more houses on Rosehill estate, and, with a view to local municipal housing development being extended to Burnley-lane area, the B.S. been instructed to search for site.

Cardigan.—B.G. decided to purchase home for children at £2,400.

Castleford.—U.D.C. approved recommendation of sub-committee regarding reconstruction of Market Hall, which was burned out on New Year's Eve.

Chorley.—Plans passed.—J. W. Lee, Ltd., 15 houses, Letchworth-drive; H. B. Moss, 8 houses, Weldbank-lane; J. W. Lee, Ltd., pair semi-detached bungalows, Claremont-av.; C. G. Froom, 6 cottages, Blackburn-st.; Rev. Fr. Bilsborrow, extension to Weldbank Institute; Chorley Bleaching Co., additions to Bleach Works, Common-bank.

Coalville.—Co-operative Society accepted tender of the Co-operative Wholesale Society's Building Department to erect new bakery for £36,555.

Colwyn Bay.—Governors of Rydal School decided to proceed with new science buildings at £20,000. Architect, S. Colwyn Foulkes, A.R.I.B.A., Conway-rd.

Cookham.—Fleet bridge is being rebuilt by Berks C.C.

Coventry.—F. C. R. Palmer, National Provincial Bank, Ltd., 14, Bishopsgate, London, E.C.2, prepared plans for bank premises in Hertford-st.

Crosby.—Scunthorpe and Frodingham U.D.C. received M.H. approval for erection of an additional 50 houses on Council's housing estate at Crosby.

Cudworth.—Surveyor to U.D.C. reported that cost for altering existing offices for gas showrooms would be £275, and that alteration and addition of another story would cost £350. It was agreed that £350 scheme be carried out.

Dunston-on-Tyne.—Scheme been formulated to erect a church hall. Architects, Jos. Potts & Son, 57, John-st., Sunderland.

East Ham.—Plans been prepared for school-room in connection with Parish Church.

Edmonton.—U.D.C. passed plans.—J. Jessop, garages at corner of Winchester-rd. and Chichester-rd.; North Metropolitan Electric Power Supply Co., alterations to existing sub-station at Angel Factory Colony; F. Short, 6 garages, 142, Silver-st.; E. E. Yates, 29 bungalows in Manor-way and Wellington-rd.; E. E. Yates, 4 houses in Uvedale-rd., Enfield; M.K. Electric Co., Ltd., additions to factory building in Wakefield-st.

Feltham.—U.D.C. accepted tender, at £55,000, for local main drainage scheme.

Gt. Yarmouth.—R. H. Clarke, Ltd., decided to rebuild mills. Plans by F. R. B. Hayward, Queen-street.

Hatfield.—R.D.C. decided to add to their building commitments by erecting a further 48 non-parlour type houses at Newtown, Hatfield, and two lots of 12 houses, one lot at Newgate-st., and the other at Welham Green.—Council also approved Hertfordshire C.C.'s proposal to provide elementary school at Newtown, at £7,800.

Hendon.—R.D.C. passed plans:—20 houses Whitchurch-lane, for J. Hogan; 4 houses in Woodridings-av., Pinner, for E. W. Elson; 8 shops in High-rd. and Whitefriars-drive, Harrow Weald, for H. B. Silver, Ltd.; 4 houses in Kenton-lane, for H. Pickrill.

High Wycombe.—Plans approved by Justices for alterations and additions to Falcon Hotel, for H. H. Lee. Architect, T. Thurlow, 25, High-street.

Hunslet (York).—New branch library is to be built.

Kettering.—Additions to Conservative Club are contemplated. Architect is R. J. Williams, F.R.I.B.A., Parkstile-chambers, Market-st.

Leighton Buzzard.—Additions to Cedars school, Leighton Buzzard, at £13,960.

Limavady.—R.D.C. decided to advertise for erection of 40 labourers' cottages.

London (Bermondsey).—B.C. recommend that General Manager of Works estimated for levelling, laying out, shelters, cages, drains, walls, gates, railings, fountain, concrete and asphalte at Tanner-st. site be accepted at £5,563 18s.—Building plans passed:—H. J. Thompson, Fort Motor Garage, Fort-rd., alterations to existing garages.—Drainage plans passed:—William Harbrow (1928), Ltd., 214 Rotherhithe New-rd., for Wilson's Cooperage Co., Ltd., 116, Tanner-st., new building at 116, Tanner-st.; President and Governor of Guy's Hospital, St. Thomas-st., day nursery, flats and shops, 65/70, Snowsfields; Stevens & Sons (builders), Crouch Hill, N.4, for Courage & Co., Ltd., Brewery, Horsely down-lane, reconstruction of "Gloucester Arms" P.H., 74, Rolls-rd.; J. Smith & Son, 102, Albany-st., Regent's Park, N.W.1, for Salvation Army, Queen Victoria-st., E.C.4, new bath and sink accommodation, 114 to 122, Spa-rd.; T. D. Hind, 395, Rotherhithe New-rd., for D. T. Crew, 127, Rotherhithe New-rd., reconstruction of drains, 123, 125, 127, 129, Rotherhithe New-rd.; A. W. Ackroyd, Commonwealth-bldgs., Albion-rd., Woolwich, for Royal Arsenal Co-operative Society, 147, Powis-st., Woolwich, S.E.18, reconstruction of drain, 15, Salisbury-st.

London (Mortlake).—Subscriptions for erection of proposed Church of England chapel in the new Hammersmith Cemetery at Mortlake are still being invited. Cost of the erection of the chapel is £2,500.

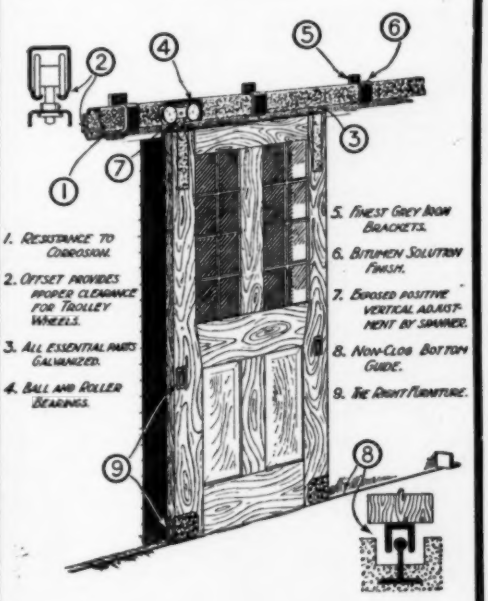
Ludlow.—R.D.C. are considering housing scheme for Craven Arms.

SLIDING DOOR GEAR

FOR FACTORIES, GARAGES, SCHOOLS, ETC.

Nine essential features of "Henderson" Door Gear

TRADE MARK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Maidstone.—T.C. passed plans:—London-rd., 6 houses, for A. E. Palmar; and Sutton-rd., 4 houses, for G. Pearce & Sons.

Manchester.—Improvements are to be made to Derby Arms public-house, Salford, for Swales & Co., Ltd., of Junction-st., Hulme, Plans by Mr. Hartley Hacking, 5, Blackfriars-st.—Alterations are to be made to premises of Manchester and Salford Savings Bank at corner of Stretford-rd. and Welcome-st., Hulme. Plans by Beaumont & Sons, 24, Brazennose-st.—It was reported that the Midland Bank has bought property in the city on which extensive bank premises will be erected. The site is the "island" bounded by King-st., Brown-st., Spring-gardens, and Chancery-lane. Wilsons Brewery, Ltd., Monsall-rd., Newton Heath, proposing to make improvements and alterations to Malt Shovel public-house, Thornton-st., Collyhurst.—H. G. Guise, architect, 79, Corporation-st., is preparing plans for 50 houses on Crescent-rd. estate, Crumpsall.—Negotiations are in course of progress for site for electric printing works. Architects, Drury & Gomersall, Imperial-buildings, Oxford-st.—Winders & Tinsdale, Palatine-rd., Withington, proposing to erect 20 semi-detached houses on Longton-av. Architect, E. A. Tindale, 42, King's-rd., Old Trafford.

Mossley.—T.C. are to erect 26 houses at Hollins Farm, Micklehurst.

Newcastle-upon-Tyne.—T.C. are to deal with report relating to further expenditure of £1,778 on new baths and concert hall, for which sanctions already obtained amount to £190,333.

Newmarket.—R.D.C. passed plans for new school at Swaffham Prior, for Trustees of Church of England School.

Newport (Mon.).—Monmouthshire C.C. decided to have plans prepared for nine miles "ring" road round Newport, at £300,000.

Northallerton.—Kitchen & Archibald, F. & L.R.I.B.A., architects, 21, Albert-rd., Middlesbrough, have scheme in preparation for bank premises in High-st., for Lloyds Bank, Ltd.

Northampton.—C.B. resolved that B.E. be instructed to invite tenders for erection of 57 B3 type houses.

Norwich.—M.H. held inquiry into scheme of Norwich Corporation to spend £6,000 in widening River Wensum by purchasing site and power station of Norwich Tramways Co. in Duke-st.

Padgate.—B.G. sanctioned £588 11s. for conversions, repairs and additions at Cottage Homes buildings.

Plymouth.—C.B. given instructions to Borough Architect to prepare and submit plans and estimates for providing two shops with dwelling-rooms and two dwelling-houses, on Higher Mount Gold site.

Portmadoc.—Hospital Committee of Madoc Memorial Hospital and Nursing Association proposing to carry out extensive additions to hospital. Plans by R. D. Jones, A.R.I.B.A., architect, 36, High-st., Pwllheli.

Scarborough.—T.C. accepted tender for conversion of Londesborough Lodge, The Crescent, into medical baths.

Skegness.—Scheme for building large concert hall and refreshment buffet at entrance to pier is under consideration.

Springfield.—Middlesex C.C. propose to carry out alterations at Mental Asylum, to cost £7,000. Architect, H. G. Crothall, F.R.I.B.A., 87, Tufton-street, S.W.1.

Southall (Middlesex).—New Labour hall is to be built.

Southend-on-Sea.—The National Provincial Bank, Ltd., E.C.3, have acquired premises at the corner of Warrior-square and High-street for branch premises. The bank surveyor is Mr. F. C. R. Palmer, F.R.I.B.A.

Southport.—Trustees of Church of St. Simon and St. Jude have acquired site at Hyde Park-rd. for edifice, estimated to cost from £15,000 to £16,000. Plans by G. S. Packer & Crampton, L. & A.R.I.B.A., architects, 41, Hoghton-st.

Staines.—R.D.C. passed plans:—Transformer sub-station, Golden Cross, Poyle, Egham and Staines Electricity Co.; factory buildings, Court Farm, Stanwell, Waste Food Products; open garage, London-road, Stanwell, A. Phillips.

Stockport.—Co-operative Society, Ltd., are to acquire site with frontages to Finney-lane and St. Anns-rd., Cheadle, for purpose of new branch premises. Plans by Wrathmell & Blackshaw, LL.R.I.B.A., Queen's-buildings, St. Peter's-square.—Gray & Evans, architects, 51, North John-st., Liverpool, are preparing plans for extensions to Don Picture Theatre, Bramhall-lane, Stockport, for directors.

Sunderland.—B.G. are to build new operating theatre at Highfield Institution, to cost £3,650.—Health Committee decided to erect 75 flats on portion of slum area.

Taunton.—M.H. held inquiry respecting application of T.C. for sanction to borrowing of £1,050 for purchase of Jarvis's Field, Priory Bridge-rd., as site for proposed new sheep and cattle market, and of £10,500 for the lay-out and equipment of the markets.

Wealdstone.—Council authorised Clerk to advertise for tenders for erection of 164 houses proposed on Elmsgrove-rd. estate.

West Bromwich.—Scheme been formulated for new Wesleyan Church. Architect, C. Millard Fillmore, A.R.I.B.A., 139, Beeches-rd.

West Hartlepool.—T.C. passed plans:—F. M. Gibbon, 5 pairs semi-detached houses, Grange-rd.; and Trustees of British Legion, alterations to club premises, Jersey-st.

Willesden.—U.D.C. obtained sanction to raise loan of £150,000 for further housing schemes.

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 14 3	Do. Bullnose	9 15 0
Do., Bullnose	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	1 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
Headers	20 10 0	One Side and two Ends	30 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Two Sides and one End	31 10 0
		Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	10 6 per yd.	delivered 2 miles radius Paddington.
Pit Sand	13 9 „ „	
Thames Sand	14 6 „ „	
Best Washed Sand	14 6 „ „	
¾ in. Shingle for Ferro-Concrete	12 9 „ „	
½ in.	14 0 „ „	
¾ in. Broken Brick	11 6 „ „	
Pan Breeze	8 0 „ „	

Per ton delivered in London area in full van loads.

Best Portland Cement. British.

Standard Specification. Test £2 13 0 to £2 15 0 40s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 7 6
Super Cement (Waterproof)	4 3 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 10

BEER STONE—RANDOM BLOCK—

Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½

Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.

PORTLAND STONE.—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.—

Delivered at any Goods Station, London.	s. d.
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides „	22 6
Sawn three or four sides „	27 6

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in., sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 6½
1½ in. to 2 in. ditto, ditto „	1 3½

HARD YORK—

Delivered at any Goods Station, London.

Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto „	6 1½
4 in. sawn two sides slabs (random sizes) „	2 1½
3 in. ditto ditto „	2 10
2 in. self-faced random flags Per yd. super	8 6

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	26 0
4 × 7	23 0	3 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1 × 11	£30 0	1 × 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅝	18/-	1¼	30/-
¾	21/-	1½	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.	Inches.	per sq.
1	24/-	⅝	16/6
1¼	30/-	¾	19/-
1½	34/-	1	24/-

MATCHING (BEST).

Ins.	s. d.		s. d.
BATTENS. ⅞ × 2	per 100 ft. 2 6	SAWN LATHS. Per bundle	2 6

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16	0 to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 14	0 to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10	0 to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 15	0 to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 16	0 to 1 1 0
Dry Cuba Mahogany, ft. cube	1 1	0 to 1 10 0
Dry Teak, ft. cube	0 13	0 to 0 15 0
Dry American Whitewood, ft. cube	0 10	0 to 0 14 0
Best Scotch Glue, per cwt.	4 10	0 to —
Liquid Glue, per cwt.	4 7	0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Hip and valley tiles (per dozen) Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
„ In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ⅞ in.	10 15 0
⅜ in.	11 0 0	1 in. to 2¾ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	67½	50	42½	45	52½	55
Water	63½	46½	37½	40	47½	50
Steam	60	42½	32½	35	42½	45
Galv. gas	55	37½	32½	35	42½	45
Galv. water	50	32½	27½	30	37½	40
Galv. steam	45	27½	22½	25	32½	35

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d.	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. GUTTERS.

3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/10½	1/3	1/9½
2½ in. „	2/0½	1/4½	2/1½
3 in. „	2/6	1/9	2/7½
3½ in. „	2/11½	2/0½	3/0½
4 in. „	3/5	2/6½	3/8½

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½
2½ in. „	3 9	2 7½
3 in. „	4 6	2 10
3½ in. „	4 11½	3 7
4 in. „	5 5½	4 0½

	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½
2½ in. „	3 9	2 7½
3 in. „	4 6	2 10
3½ in. „	4 11½	3 7
4 in. „	5 5½	4 0½
5 in. „	6 8	4 11½
6 in. „	7 11	5 10½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 4	5 1
4 in. „ „	4 10	5 8
5 in. „ „	6 6	10 10
6 in. „ „	6 8	13 2

Gasken for jointing, 38/6 per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common bars	13 0 0	to	14 10 0
Staffordshire Crown Bars—Good merchant quality	14 5 0	to	15 15 0
Staffordshire Marked Bars	16 5 0	...	17 5 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	12 0 0	...	13 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—Ordinary sizes, to 20 g.	13 5 0	...	14 5 0
„ „ „ 24 g.	14 5 0	...	15 5 0
„ „ „ 26 g.	16 5 0	...	17 5 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	...	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	...	20 10 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—

Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 0 0	...	19 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	18 10 0	...	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	21 10 0	...	22 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	...	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	...	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	...	26 10 0
Cut Nails, 3 in. to 6 in.	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)

	£ s. d.
LEAD—Sheet, English, 4 lb. and up	30 0 0
Pipe in coils	30 10 0
Soil pipe	33 10 0
Compo pipe	34 10 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 5s. cwt. extra.

Oil lead, ex London area, at Mills per ton	20 5 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 1
Strong sheet „	1 0
Thin „	1 1
Copper nails „	2 3
Copper wire „	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 2/6 per lb. SOLDER.—Plumber's 1/1, Tinmen's 1/4, Blowpipe 1/5 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0 2 9
„ „ „	in barrels „	0 2 11
„ „ „	in drums „	0 3 1
Boiled „ „	in barrels „	0 3 1
„ „ „	in drums „	0 3 4
Turpentine in barrels	„	0 4 2
„ in drums (10 galls)	„	0 4 4
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		52 0 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

GENUINE WHITE LEAD PAINT.

		£	s.	d.
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J," Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	70	10	0
Red Lead, Dry (packages extra) ...	per ton	39	10	0
Best Linseed Oil Putty	per cwt.	0	15	0
Filicol	,,	0	15	6
Size. XD quality	fkn.	0	3	6

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ...	2½d.	32 oz. fourths	6½d.
15 ,, thirds ...	3½d.	32 ,, thirds	8½d.
21 ,, fourths ...	3½d.	Obscured Sheet, 15 oz.	3½d.
21 ,, thirds ...	4d.	,, ,, 21 ,,	4½d.
26 ,, fourths ...	3½d.	Fluted 15oz.6½d.,21oz.	9d.
26 ,, thirds ...	6½d.	En'lled 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
⅛ Rolled plate	4½d.
7/32 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

New Fish Dock at Grimsby.

The Docks Engineer's Department of the London & North-Eastern Railway Company is busy upon plans in connection with the proposed new Fishing Vessels Dock for Grimsby. The undertaking will involve the expenditure of something like a million pounds.

Mental Hospital, Bradford.

It was announced at the recent meeting of the Bradford Corporation Mental Deficiency Committee that sanction had been received from the Board of Control for the erection of a mental hospital at Bradford at a cost of £105,000. The plans for the institution, drawn up by the city architect (Mr. W. Williamson) have been accepted by the Board of Control.

Employment in the Building Trade.

During July (according to the "Ministry of Labour Gazette"), except for a further decline in the painting and decorating section, employment varied little as compared with June; it was fair to fairly good in many districts with skilled operatives, but was reported as slack or poor at a few centres; it remained moderate with unskilled workers. Employment was generally worse than in July, 1927, particularly in Wales.

As regards individual occupations, employment was fairly good, on the whole, with bricklayers, masons, and carpenters and joiners; it improved, and was generally moderate, with plasterers; it declined somewhat with slaters, and was moderate to fair. Employment continued generally moderate with plumbers; it showed a further decline with painters and decorators, but was fair, on the whole; it continued moderate with tradesmen's labourers. As compared with July, 1927, employment was considerably worse with plasterers, and also showed a decline with each of the other classes.

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the office of the City Engineer:—Blackness-road—dwelling-house for Mr. Wm. Black (Mr. W. M. Patrick, architect, 26, Yeaman-shore); Forrest Park-place—cinema for Mr. Chas. Gray; King-street—alterations for the Trustees of St. Andrew's Parish Church (Messrs. Allan & Friskin, architects, 26, Castle-street); Victoria Bridge—power house for Messrs. Baxter Bros. & Co., Ltd. (Mr. Robert Gibson, architect, 2, India Buildings).

Hamilton.—HOME.—The Dean of Guild Court has approved the additions to the Child Welfare Centre for the Town Council at £4,600.

Edinburgh.—BUILDINGS.—The Edinburgh Dean of Guild Court has granted warrant for the erection of a new building for the University of Edinburgh at West Mains-road. The new building, the architects of which are Messrs. Lorimer & Matthew, Edinburgh, is to be the Animal Breeding Research Department of the university, under the charge of Professor Crewe. The total cost of the scheme will be within £30,000, part of which is to be borne by the Government. The other full warrants granted were:—T.C.—bridge at Baird-drive and bridge under Portobello-road; C. H. Dunlop—18 semi-detached bungalows at Columba-road, Blackhall; Education Authority—additional accommodation at St. Ninian's R.C. School, Restalrig-drive; W. Forrest—four semi-detached villas and garages at Campbell-road; A. & J. Macnab, Ltd.—new dry-cleaning room and alterations at Inglish Green Dyeworks, Slateford; J. B. M'Neill—convert stable stores at Jamaica-street, North-lane; Murrayfield Amateur Football Club—pavilion in field at Traquair Park, East; Wire and Metal Constructors, Ltd.—extend premises at 26, Ratcliffe-terrace; J. Rankine—double garage at 16, Belgrave-crescent; St. Cuthbert's Co-operative Association, Ltd.—firewood factory at Hutchison-road; Commissioners M.M. Works and Public Buildings—telephone exchange at Windsor-place, Portobello.

Dalreoch.—ROAD.—The Western District Committee of Dumbarton County Council has agreed to proceed with the work in connection with the asphalt surfacing of Loch Lomond road from the boundary at Dalreoch to Balloch-road. The road surveyor has reported that the total expenditure allowed is £30,430.

Aberdeen.—BLIND ASYLUM.—The Public Health Committee of Aberdeen Town Council recommended that two-thirds of the capital cost of the provision of additional workshops at Aberdeen Asylum for the Blind, estimated at £4,000, should be contributed by the Council.

The Late Frederick Higgs.

We have received from a lady, who desires to remain anonymous, a cheque for £30 as a contribution to the funds of the Builders' Benevolent Institution, in memory of the late Frederick Higgs, an obituary notice of whom appeared in our issue for August 17. The cheque has been duly forwarded to the Institution.

Evening Course on Timber.

A three years' evening course on "Timber" has been arranged, under the supervision of the City of London College Timber Trade Advisory Committee, and has received the formal approval of the Timber Trades' Federation. The lecturers are Mr. E. H. B. Boulton, M.C., M.A., Mr. L. A. Boon (Messrs. Churchill & Sim), Mr. S. J. Duly, M.A., Mr. H. Fergusson (Messrs. Burt, Boulton & Haywood, Ltd.), and Mr. F. W. Jane, B.Sc. (demonstrator). The syllabus comprises the following subjects:—Part I.—Identification and Uses of Common Timbers; Organisation and Methods of the Timber Trade. Part II.—Identification and Uses of Special Timbers; Forests of the World and the Timber Supply. Part III.—Practical Examination of Timbers with Special Reference to their Defects; Timber Mensuration; Preservation of Timber.

Full particulars of the course may be obtained on application to Mr. D. Savage, Secretary, City of London College, White-street, Moorfields, E.C.2.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons' ‡ Bricklayers'‡ Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/–
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Hawick	1/7	1/7	1/7	1/7–1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/– to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/–
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District) ...	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 399.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	„ „	7	0
Add if in floors 6 in. thick	„ „	3	3
Add if in beams	„ „	3	9
Add if aggregate 1 : 2 : 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	„ „	9	6
Three-quarter-inch on flats in two thicknesses	„ „	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	„ „	22	0
Bath stone and all labour fixed	„ „	10	6
Beer stone and all labour fixed	„ „	15	0
Portland stone fixed	„ „	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	„ „	5	6
Do. roofs, floors and partitions	„ „	6	0
Do. trusses	„ „	8	6

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

Flat centering for concrete floor, including struts or hangers	„	50	0	
Do. to beams	per ft. sup.	0	11	
Centre for arches	„	1	6	
Gutter boards and bearers	„	1	0	

FLOORING.

		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	„	—	49/-	57/6	65/-
Do. matchings	„	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Dc.	„ „	2	1
Add for fitting and fixing	„ „	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	„ „	3	9

DOORS.

		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bea ers	„	1/4	1/6	1/9
Add if cross-tongued	„	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	12	0
Add if wreathed	„ „	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	„	19	0
Do. stanchions	„	21	9
In roofwork	„	27	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	„	1/9	2/-	2/6	3/3
Rain-water pipes with ears	„	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	43	0
Do. Do. in flats	„	42	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	„ „	1	3
Copper nailing	„ „	0	3

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	„	1/8	2/2	2/7	3/10	—	—
Do. soil	„	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6	—
Read lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	„	—	—	—	14/7	19/6	—
Bib cocks and joints	„	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	„	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	„ „	2	9
Do. Do. Keen's	„ „	4	0
Add saw lathing	„ „	1	7
Add metal lathing	„ „	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	„ „	2	2
Do. plain face	„ „	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic paving	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	„ „	1	0
Obscured sheet	„	1	1
¼-in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	10½
¼-in. wired cast plate	„ „	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting, 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Bitumen Dampcourses.

We have received from Messrs. Blackwell's and National Roofings, Ltd., specimens of their bitumen roofings, dampcourses and underlinings—as supplied to the British Government. This firm claims to be the first to introduce bitumen ready roofings, and their products to-day—manufactured with British labour entirely—are maintained at the right and original level. Blackwell's roofing is claimed to be efficient under all extremes of temperature; is vermin-proof and odourless; is not affected by vibration or stresses, and is suitable for covering boarded or concrete roofs. Blackwell's dampcourses of pure bitumen are guaranteed to be impervious to moisture, unaffected by lime or cement in contact, and will not squeeze out. Full details may be found in the new catalogue obtainable from Lansdowne-road, Croydon.

Travelling Radiator Exhibit.

The motor travelling caravan fitted with the working "Ideal Cookanheat" installation and put on the road by the National Radiator Co., Ltd., of Hull, will demonstrate as follows:—September 10, Court-street Car Park, Faversham; September 11, Messrs. Arthur Collar's Yard, High-street, Whitstable; September 12, opposite the Pier, Herne Bay; September 13, Market-place, Canterbury; September 14, in front of Palladium Garage, Northdown-road, Cliftonville, Margate.

A New Service Depot.

It is essential, in these days of fast, long-distance road transport, that there should be ever-ready service depots, at various strategic points on the main trunk routes, and the new depot, opened by the Dunlop Company in Coventry, should be of great use to commercial vehicle owners. This depot is fully equipped to deal with every sort of tyre trouble and wheel problem, and while service is given free, tyres, of course, are not sold there, the object of the depot being merely to provide an efficient service after the dealers' sales.

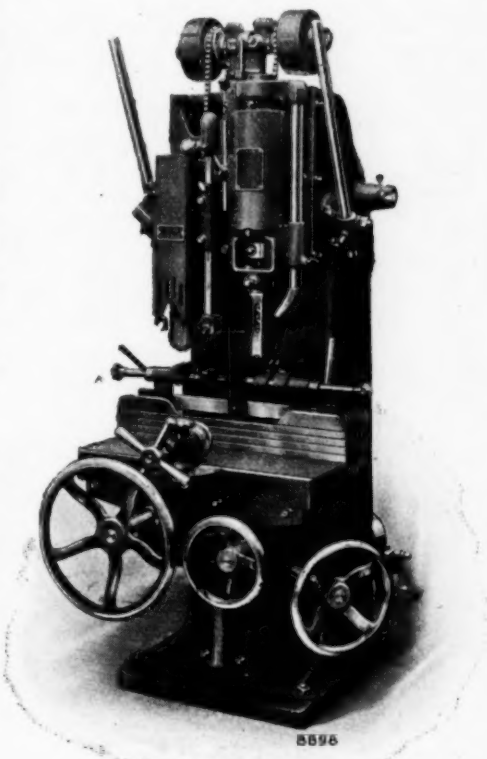
Pressa Exhibition.

In this Exhibition the H.A.G. Coffee Co., Ltd., erected an enormous tower at a cost of 500,000 marks. The tower represents the latest style of modern German architecture, and was designed by Professor Bernhard Hoetgers. It is 140 ft. high. Passengers are conveyed to the top in a lift, and coming down the various floors are devoted to showing the process the coffee undergoes until it is finally packed for dispatch to the consumer. At the base of the tower is a very tastefully arranged restaurant. It seems very unfortunate that the general effect of the tower is so spoilt by the advertisement excrescences.

A TOWER AT THE PRESSA EXHIBITION.

Machine Tool Exhibition.

This exhibition—open at Olympia, W.14, until September 22—is remarkable for some very fine displays of woodworking machinery.



CHAIN-CUTTING AND MORTISING MACHINE.

One of the most interesting is the exhibit of Messrs. Thos. Robinson and Son, Ltd., of Rochdale, who are showing their new combined chain cutter and hollow chisel mortiser, type S.L., which is fitted with ball-bearings and direct belt drives. We reproduce this machine here. It is newly designed for mortising either hard or soft wood, and is particularly suitable for joiners, builders, cabinet makers, etc. It embodies all the latest ideas and adjustments for easy operation and setting-up. It can also be used for boring. The machine is one which will be of the very highest interest to the woodworker, as will undoubtedly prove this firm's moulding machine, type R.D., with ball-bearings. This machine is for planing and moulding either hard or soft timbers. It can be made with four, five, or six cutterheads. No visitor should leave Olympia before inspecting this stand.

Glass Firm's Annual Outing.

On August 25, Messrs. A. Goldstein's employees, numbering nearly 100, spent a very pleasant day at Margate. Mr. A. Goldstein (who was the guest of the party) at lunch thanked all his employees for the loyal way they had served the firm, and was pleased to point out the great strides the firm had made during the year, despite the many difficulties that beset them. Lunch over, the party adjourned to spend the rest of the day as they would, and returned to London at a late hour. Thanks are due to Mr. G. Glazebrook for the able way the arrangements for the party were carried out.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

Aintree.—New works in Park-lane, for Messrs. E. T. Gee & Sons, Ltd., 22, Mark-street, Liverpool. Messrs. Quiggin & Gee, FF.R.I.B.A., architects, 24, North John-street, Liverpool:—

*Tyson's (Contractors), Ltd., Liverpool.

Ashburton.—3 houses at East End-terrace, for the U.D.C.

*Messrs. Williams & Bishop Buckfastleigh £1,310 0 0

Bakewell.—Caretaker's lodge, at Haddon Hospital. Mr. A. C. Flint, architect, The Quadrant, Buxton:—

*F. A. Roberts, Matlock Bath.

Bakewell.—Memorial Institute at Ashford, near Bakewell, for the Committee. Mr. C. Flint, L.R.I.B.A., architect and surveyor, Buxton:—

*W. J. Eyre, Longstone.

Bebington.—Secondary school at Bebington, for the Chester E.C. Mr. F. Anstead Browne, F.R.I.B.A., County Architect, County Offices, Newgate-street, Chester:—

*Jonathan Partington, Ltd., Middleton Junction.

Belfast.—267 additional kitchen houses at Seaview, for the Corporation:—

*M'Auley, M'Ilroy & Co., Ltd., Belfast.

Bournemouth.—New Roman Catholic School at Malvern-road. Messrs. Hawker & Partners, architects, St. Peters'-chambers:—

*George & Harding, Bournemouth.

Steelwork—
*E. C. & J. Keag, Birmingham.

Asphalt—
*Val-de-Travers Asphalte Paving Co., Ltd., London.

Heating—
*G. N. Haden, London.

Electric Lighting—
*Bourne & Poole Electricity Supply Co., Bournemouth.

Casements—
*Crittall Manufacturing Co., Braintree.

Floors—
*The "Zeta" Wood Flooring Co., Ltd., London.

Sanitary Fittings—
*Adamez, Ltd., Scotswood-on-Tyne.

Brierley Hill.—Cinema in High-street. Mr. Stanley Griffiths, architect, High-street, Stourbridge:—

*G. Mobbs, Birmingham.

Plastering—
*Taylor & Co., Birmingham.

Tiling—
*Gibbons, Hinton & Co., Brierley Hill.

Terra-cotta—
*Ketley Co., Brierley Hill.

Heating—
*Jones & Attwood, Stourbridge.

Congleton.—New wing at the War Memorial Hospital, for the Committee. Mr. J. Herbert Hall, architect and surveyor, 1, Cooper-street, Manchester:—

*T. & E. Cooke, Congleton.

Coventry.—Rebuilding the "Hare and Squirrel" public-house in Cow-lane, for Messrs. Ind, Coope & Co., Ltd. Mr. C. Redgrave, L.R.I.B.A., architect, 33, Earl-street, Coventry:—

*E. Harris & Son, Coventry

Coventry.—New licensed premises at Coundon-road, Radford, for Messrs. Mitchells & Butler, Ltd., Cape-hill Brewery, Birmingham. Messrs. Hartrell & Wortley, L.R.I.B.A., architects, 1, Queen's-road, Coventry:—

*E. Harris & Son, Coventry.

Coventry.—New licensed premises at Earlsdon, for Messrs. Mitchell & Butler, Ltd., Cape-hill Brewery, Birmingham. Messrs. Hartrell & Wortley, L.R.I.B.A., architect, 1, Queen's-road, Coventry:—

*E. Harris & Son, Coventry.

Coventry.—Licensed premises at Holbrook-lane, for Messrs. Mitchell & Butler, Ltd. Messrs. Hartrell & Wortley, L.R.I.B.A., architects, 1, Queen's-road, Coventry:—

*W. H. Jones & Son, Coventry.

Darlington.—Extensions to the Co-operative Society, Ltd. Mr. F. Clark, architect, Darlington:—

*G. Gougill, Darlington £50,000

Devizes.—2 pairs of non-parlour type cottages at the new road at Bromham, for the R.D.C. Mr. T. V. Trumper, building surveyor, 2, Pretoria-villas, Bath-road:—

T. Offer, Devizes	£1,796 0
J. H. Brown, Calne	1,646 0
H. King, Devizes	1,582 0
E. D. Butler, Bromham	1,567 0
A. J. Box, Bromham	1,554 0
T. Stevens, Devizes	1,550 10
*Flower and Sons, Devizes	1,544 10

Dulverton.—Public convenience, for the R.D.C.:—
*W. Nott, Bampton £549

Eastbourne.—Extensions to the Royal Eye Hospital. Mr. Peter Stonham, F.R.I.B.A., architect, Hadley House, Upperton-road:—
*Woolnough, Ltd., Eastbourne.
Steelwork—
*Dawnay & Sons, Ltd., Battersea.

Edinburgh.—Tenders accepted by the Town Council. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—
Lavatories: Thorneybank and Shrubhill Tramway Depots:—
Mason, etc.—
*John Craven & Sons, Leith £262
Joiner work—
*A. Kent £171
Plumber work—
*P. Knox £254
Two blocks of three apartment-flatted houses: type Fa, Portobello Housing scheme:—
*John Hardie & Son, Bo'ness £2,554
College of Art:—
Painter work—
*W. & T. Scott, Leith £410
Stenhouse Mills Housing Scheme: Shopping Centre.—12 shops and 24 houses:—
*W. Arnott McLeod & Co., Ltd., Edinburgh £15,338
Transformer House: Roseburn-drive:—
*John Hardie & Son, Bo'ness £430
Also for Sub-stations at Joppa, Portobello, Comely Bank, Comiston-rd.
Gilmerton Housing: One block of four houses:—
*John Hardie & Son, Bo'ness £1,552
Pavilion for Footballers, Iverleith Park:—
*W. C. Robertson & Carrick, Edinburgh £459
Henderson-row Washouses:—
Painter work—
*Geo. M. Robb £359

Edinburgh.—Alterations to the Murrayfield Parish Church. Mr. Balfour Paul, architect, 16, Rutland-square:—
*W. Arnott M'Leod, Edinburgh.

Forfar.—Extensions to the infirmary, for the directors. Mr. D. Watterston, architect, 34, Castle-street. Quantities by Mr. R. Hamilton, surveyor, 10, Reform-street, Dundee:—
Mason's work—
*Alexander Adamson, Laurencekirk.
Joiner's work—
*Henry Wall, Forfar.
Slater's work—
*A. & C. Shepherd, Forfar.
Plumber's work—
*D. Langlands & Sons, Forfar.
Heating work—
*D. Langlands & Sons, Forfar.
Plaster work—
*John Nevay & Son, Forfar.
Jointless Flooring and Tilework—
*Toffolo, Jackson & Co., Glasgow.
Painter's work—
*A. Henderson & Sons, Forfar.
Electric Lighting—
*R. Kilpatrick & Co., Dundee.

Gateshead.—Elementary school at Carr Hill, for the E.C.:—
*C. B. Smith, Eighton Banks ... £30,193 8 10

Grantham.—Additions and alterations to casual ward, for the Guardians:—
*G. Kettle £780

Gravesend.—182 houses in brick or concrete, 30 parlour type and 104 and 48 non-parlour type, for the Corporation. Mr. J. G. Bennett, Lic., R.I.B.A., Borough Architect, 5, Woodville-terrace:—
For 104 "C" type houses (brick) non-parlour:
*V. G. Dean, Higham £36,760
48 "D" type houses (brick) non-parlour:
*S. & G. Bridger, Gravesend £20,580

Great Yarmouth.—Group of schools on the portion of Barracks estate, South Denes, for 1,080 children, for the C.B. Messrs. Olley & Haward, architects, Queen-street:—

W. J. Croft, Lowestoft	£35,200
F. R. Absalom, Ltd., Cambridge	33,856
F. R. Hipperson, Ltd., Norwich and London	33,300
H. C. Greengrass, Norwich	32,196
J. Youngs & Son, Ltd., Norwich	31,897
R. G. Carter, Drayton	30,700
H. R. Middleton, Ltd., Gt. Yarmouth	30,650
C. P. Unwin, Sheffield	29,916
Moore & Son, Gt. Yarmouth	29,088
Balls & Son, Gt. Yarmouth	28,816
B. G. Beech, Gt. Yarmouth	27,698
E. E. Pestell, Gt. Yarmouth	27,563
*R. H. Carter & Son, Ltd., Gt. Yarmouth	27,497
Architect's estimate	28,990

Hatfield.—For (*a*) 48 non-parlour type houses at Newtown, Hatfield; and (*b*) 12 non-parlour type houses at Newgate-street, for the R.D.C.:—
*(*a*) Bennett Bros., Letchworth £15,819
*(*b*) W. F. Rand, Ashwell 3,963

Hatfield.—Providing and laying of about 400 yards of 10-in. and 8-in. cast-iron pipes, with necessary valves, specials, etc., construction of brick pump house with concrete roof and provision therein of overhead travelling crane and pump foundations, construction of brick meter and transformer house with concrete roof and provision and fixing therein of meters and electrical gear, extension of roads and paths and other works connected therewith at their pumping station near Hatfield, for the Thorne and District Water Co. Messrs. Fairbank & Son, engineers, The Tudor House, Stonegate, York:—
*W. Firth & Son, Doncaster £2,049 15

Haywards Heath.—Residence, for Mr. H. F. Wheeler. Messrs. R. W. Featherstone & Co., architects:—
†Ringmer Building Works.

Hebden Bridge.—Alterations to the offices and showroom at Carlton-street, for Hebden Bridge and Mytholmroyd Gas Board. Messrs. Sutcliffe & Sutcliffe, architects, New-road:—
Mason—
*O. Watson £210 0 0
Joiner—
*T. A. Gibson 247 19 9
Plumbers—
*Greenwood & Taylor 156 0 0
(All of Hebden Bridge.)

Heywood.—Two blocks of eight houses in Egerton-street, and two blocks of six houses in Wilton's Extent, for the T.C. Mr. J. B. Nuttall, Borough Surveyor:—
*John Gott, Heywood.

High Wood.—Cleaning, painting and repairs, at High Wood Hospital for Children, for the M.A.B.:—
E. Proctor & Sons, London £527
*J. Hocking & Co., London 509

Hitchin.—Additions and alterations to the Union Infirmary, for the B.G. Mr. S. B. Russell, F.R.I.B.A., architect, Bank-chambers, Brand-street. Quantities by Quantity Surveyor, Mr. J. T. Wyatt, 10, Haredale-road, Herne Hill, London, S.E.24:—

	Main Alterations.	Bed Lift.
H. C. Janes, Ltd., Luton	£7,950 0 0	£196 0 0
F. Newton & Son, Hitchin	6,787 0 0	141 0 0
J. Willmott & Sons, Hitchin	6,741 0 0	155 0 0
R. Ginn & Son, Hertford	6,599 0 0	156 0 0
J. Dennis, St. Albans	6,400 0 0	145 0 0
T. Raban & Sons, Baldock	6,240 0 0	144 10 0
W. French, Hitchin	6,230 0 0	135 0 0
F. J. Bailey & Co., Ashwell	6,220 0 0	150 0 0
S. Redhouse & Son, Stotfold	6,185 0 0	149 0 0
John Ray, Letchworth	6,161 15 9	144 11 0
Arthur Carter, Luton	6,091 0 0	141 0 0
S. H. Palmer, Hitchin	6,080 3 5	145 16 0
M. & F. O. Foster, Hitchin	6,068 12 0	139 0 0
*Pettengell & Clark, Letchworth ...	6,030 15 8	144 10 8

Huddersfield.—Two lock-up shops at Westbourne-road, Marsh. Mr. J. Ainley, architect, 55, New-street, Huddersfield. Quantities by the architect:—
Mason's work—
*E. Pearson & Sons, Milnsbridge.
Joiner's work—
*G. Ainley & Sons, Ltd., Howland Moor.
Plumber's work—
*H. Hunter & Son, Paddock.
Plasterer's and Slater's work—
*T. B. Tunnacliffe, Huddersfield.
Concreter's work—
*J. Cooke & Son, Ltd., Huddersfield.
Electrician's work—
*W. R. Bottomley, Marsh.
Painter's work—
*S. Holdsworth, Huddersfield.

Hull.—Steel roof principals and other structural work, for the Corporation. Mr. T. Thomas, City Engineer:—
*C. F. Struthers, 80, Barnsley-street, Hull £862 3

Hull.—Additions at the Endsleigh College. Mr. H. Hirst, architect, Southam-chambers:—
*Hull & Sons, Hull.
Steelwork—
*King & Co., Ltd.
Joiner—
*Taylor & Son.
Plumbing and Glazing—
*King & Co., Ltd.
Painting—
*Bailey & Sons.
Slaters—
*Dawber, Townsley & Co., Ltd.
(All of Hull.)

Hyde (Ches.).—Rebuilding the Bay Horse Hotel, Victoria-street and Muslin-street, Newton. Mr. W. A. Dew, A.R.I.B.A., architect, Market-chambers:—
*T. Warrington, Hyde.

Irlam.—Police Station for Lancashire C.C. Mr. Stephen Wilkinson, F.R.I.B.A., architect, 16, Ribblesdale-place, Preston:—
*Moston Brick & Building Co., Ltd., Manchester.

Kendal.—Extensions to the Westmorland County Hospital, for the Governors. Messrs. J. F. Curwen & Son, F.R.I.B.A., architects, Highgate, Kendal. Quantities by Mr. T. Summer Smith, Manchester:—
Mason—
*J. W. Howie & Sons.
Carpenters—
*Hays & Parkinson.
Plumber—
*L. Airey & Co.
Plasterers—
*J. Storey & Son.
Painter and Glazier—
*N. Nicholl.
(All of Kendal.)

Leeds.—Patent glazing of the roof of the gallery, for the T.C.:—
*W. H. Heywood & Co., Ltd. £434 18 6

Leeds.—Tenders accepted by the T.C.:—
Painting Middleton Lodge and outbuildings at Middleton Park—
*Yesson & Robson.
Wrought iron fencing, at Cross Gates Recreation Ground—
*Thos. Green & Son, Ltd. £493 7 2½

Leeds.—Painting the exterior of property in Cookridge-street and Park-lane, for the T.C.:—
*J. Cass £140

Lewes.—House at Swanborough, for Mr. E. V. Clark. Messrs. Underdown & Duke, architects, Seaford:—
*Ringmer Building Works.

Liverpool.—New head office for Martin's Bank, Ltd., on Water-street and Exchange-street. Mr. Herbert J. Rowse, A.R.I.B.A., architect, 5, India-buildings:—
Steelwork—
*Redpath, Brown & Co., Ltd., Liverpool.

Liverpool.—Second block of India Buildings, off Water-street, for Messrs. Alfred Holt & Co. (Blue Funnel Line). Messrs. Rowse, Briggs & Thornley, A. & F.R.I.B.A., architects, 614, Royal Liver-buildings:—
*W. Thornton & Son, Ltd., Liverpool.

London.—Cleaning and painting, at the Millfield, for the M.A.B.:—

C. H. Boyd & Son, Ltd.	£423
F. W. Young & Son	367
Lilly & Sons	345
J. Hocking and Co.	337
F. Firth, Shipley	317
*A. H. Inns, Ltd.	266

(All of London.)

London.—Electric light in shore and pier buildings, at the Long Reach Hospital, for the M.A.B.:—

A. Anderson & Son, Middlesbrough	£1,905 0
Alpha Manufacturing & Electrical Co., Ltd.	1,625 0
Malcolm & Allan (London), Ltd.	1,624 0
T. Clarke & Co., Ltd.	1,341 0
Douglas Electric Light & Power Co.	1,297 0
L. G. Tate & Co., Ltd.	1,172 0
*G. E. Waliis & Son, Ltd., Ashford	884 10

(All of London.)

London.—Cleaning and painting and repairs, at the Colindale Hospital, for the M.A.B.:—

E. Dawe	£575 10
E. Proctor & Sons	385 0
Stevens & Sons	372 0
A. H. Inns, Ltd.	357 0
F. W. Young & Son	333 0
Falkus Bros., Ltd.	294 0
*F. Firth, Shipley	261 5

(All of London.)

London.—Cleaning and painting, at Sheffield-street Hospital, for the M.A.B.:—

Whittle Bros, Arnold	£490 0 0
E. Dawe	423 17 6
C. H. Boyd & Son, Ltd.	382 0 0
Stevens & Son, Ltd.	286 0 0
W. S. Barton & Co.	285 0 0
E. Proctor & Sons	275 0 0
J. Darch, Ltd.	275 0 0
A. Logan	208 0 0
A. H. Inns, Ltd.	197 0 0
Legh, Campbell & Co.	194 12 7
*Falkus Bros., Ltd.	189 0 0

(All of London.)

London.—Accommodation for visitors at Queen Mary's Hospital for Children, for the M.A.B.:—

J. Darch, Ltd., London	£1,995
A. Logan, London	1,422
*Wilson Lovatt & Sons, Ltd., Wolverhampton	1,309

London.—Cleaning and painting at Sheffield House, for the M.A.B.:—

Whittle Bros, Arnold	£420	0
E. Dawe	218	9
C. H. Boyd & Son, Ltd.	192	0
E. Proctor & Sons	159	0
W. S. Barton & Co.	146	0
A. Logan	143	0
J. Darch, Ltd.	140	0
A. H. Inns, Ltd.	137	0
Stevens & Sons	128	0
*Legh, Campbell & Co.	112	2

(All of London.)

London.—Cleaning, painting and repairs, at Long Reach Hospital, for the M.A.B.:—

Wilson Lovatt & Sons, Ltd., Wolverhampton	£5,355	0	0
W. E. Greenwood & Son, Ltd.	2,877	0	0
E. Proctor & Sons	2,795	0	0
*D. C. Bowyer	2,766	16	8

(All of London.)

London.—Cleaning, painting and repairs, at the White Oak, for the M.A.B.:—

A. H. Inns, Ltd.	£197	0
J. S. Fenn, Ltd.	185	10
F. Firth, Shipley	163	10
D. C. Bowyer	144	10
*E. Proctor & Sons	132	0

(All of London.)

London.—Cleaning and painting, at the S. Pancras Casual Ward, for the M.A.B.:—

L. Kazak & Co.	£196	10
E. Proctor & Sons	145	0
A. C. Mackinley	145	0
A. H. Inns, Ltd.	137	0
C. H. Boyd & Son, Ltd.	137	0
*W. Chappell & Co., Ltd.	115	0

(All of London.)

London.—Warehouse premises for Messrs. Charles Holliday, Ltd., of Little Britain, E.C.1. Mr. Harold Dicksee, A.R.I.B.A., architect, 22, Portman-street, W.:—

*Falkus Bros., London.

London.—Reconstruction of the North-East London Synagogue, Hackney. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*W. A. King & Sons (Brixton), Ltd. ... £7,000

London.—Assembly rooms in Redmans-road, Stepney, for Mr. A. Spielsinger. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*W. A. King & Sons (Brixton), Ltd. ... £7,900

London.—Factory in Turner-street, Stepney, for Messrs. H. & J. Goldblatt. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*G. B. Farrar & Co. ... £3,330

London.—New gallery and alterations to the Limehouse Synagogue, Baythorne-street, Stepney, E. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*P. S. Foreman & Sons, Forest Gate ... £553

London.—Ophthalmic clinic and offices in Turner-street, Stepney, for the Hospital Saving Association. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*W. A. King & Sons (Brixton), Ltd. ... £2,780

London.—Decorations to residence at 62, Parliament-hill, Hampstead, for Mr. M. Levy. Mr. H. V. Kerr, L.R.I.B.A., architect, 22, Old Square, Lincoln's Inn, W.C.2:—

*W. A. King & Sons (Brixton), Ltd. ... £410

Lowestoft.—Cleaning and painting, at the St. Luke's Hospital, for the M.A.B.:—

W. J. Croft	£644
Searles & Wilton	550
Lilly & Sons, London	545
A. Rose & Son	520
*D. Leighton & Son, Ltd.	450

(All of Lowestoft.)

Lytham St. Annes.—Secondary school for girls, on land adjoining King Edward School, Clifton-drive, Fairhaven. Messrs. T. Talieson Rees & Richard Holt, FF.R.I.B.A., architects, Liverpool:—

*J. Sutcliffe & Sons (Builders), Ltd., St. Annes-on-Sea ... £47,500

Manchester.—Improvements to the Primitive Methodist Church, Bradford-road. Mr. Knowles, architect, Bridge-street:—

*Hall Construction Co., Ltd., Salford.

Steelwork—
*Parks & Son, Northwich.

Plumbing—
*J. Turton & Sons, Manchester.

Plastering—
*Ferguson & Co., Ltd., Salford.

Slating—
*W. Royle & Co., Manchester.

Manchester.—Additions and internal alterations to the school at Dover House, Dover-street, for the Joint Matriculation Board, 315, Oxford-road. Messrs. J. W. Beaumont & Son, FF.R.I.B.A., architects, 24, Brazennose-street:—

*C. K. Dale, Ltd.

Concreter—
*F. H. & S. Daniels.

Plumber and Glazier—
*J. Jaffrey & Co.

Slater—
*Exors. of J. Toft.

(All of Manchester.)

Manchester.—Super-structure of St. Malachy School, Rochdale-road, for Rev. Marshall. Mr. W. Ellis, architect, 49, Deansgate:—

*Gladden & Davies, Ltd., Manchester.

Manchester.—Branch premises at Forge-lane and Ashton New-road, for Messrs. Montague Burton, Ltd., Hunslet Mills, Leeds. Mr. Harry Wilson, architect, 81, North-lane, Roundhay, Leeds:—

*Fearnley & Sons, Ltd., Manchester.

Brickwork—
*Moston Brick and Building Co., Ltd., Manchester.

Manchester.—Steel lattice footbridge over the Manchester Ship Canal Company's railway at Partington, for the Manchester Corporation Gas Department:—

*Pearson & Knowles Coal & Iron Co., Ltd., Warrington.

Manchester.—Club premises at the corner of Robert-street and Fletcher-street, Miles Platting, Manchester, for the Boiler Makers' Society. Mr. Roland Thomasson, architect and surveyor, 87, Mosley-street:—

*A. Fenton, Manchester.

Manchester.—Additions to factory in Cobden-street, Pendleton, for Messrs. J. Mandelberg & Co., Ltd. Mr. S. H. Fairhurst, F.R.I.B.A., architect, 55, Brown-street:—

*G. Gerrard & Sons, Ltd., Swinton.

Manchester.—Dance hall, etc., in Whitworth-street, Manchester. Messrs. Cruickshank & Seward, architects, 18, Booth-street, Manchester:—

Terra Cotta—
*Shaws Glazed Bricks Co., Darwen.

Electrician—
*G. H. Scholes & Co., Ltd., Manchester.

Heating—
*Young, Austen & Young, Leicester.

Plumber—
*R. Heyworth & Co., Manchester.

Ornamental Ironwork—
*George Wragge, Limited, Salford.

Tiling and Terrazzo—
*Conway & Co., Manchester.

Dance Floor—
*S. G. Brierley, Manchester.

Slater—
*Huntingdons, Ltd., Manchester.

Newbury.—Alterations and additions to the Council offices, also erection of an engine shed, for the R.D.C.:—

Cooke Bros.	£1,933	0
Eggleton & Tallyn	1,601	10
*A. G. H. Weaver	1,400	7
T. Plumb (engine shed only)	368	0

(All of Newbury.)

Newcastle.—New police and fire brigade and police court buildings in Pilgrim-street, for the T.C.:—

*A. Pringle, Ltd., Gateshead ... £116,507

Newcastle.—Motor garage station for the Northern General Transport Co., Ltd., of Chester-le-Street. Messrs. S. L. Browne & Son, architects, Pearl-buildings:—

*J. W. Lowry, Newcastle.

Steelwork—
*Lambhill Ironworks, Glasgow.

Norfolk.—New Education Offices, for the C.C. Messrs. Edward Boardman & Son, architects, Queen-street, Norwich:—

Cornish & Gaymer	£18,348
F. R. Hipperson	17,300
W. J. Hannant	17,034
J. Anderson & Son	17,009
T. Gill & Son	16,985
R. G. Carter	16,670
J. Youngs & Son	16,597
A. R. Taylor & Co.	16,400
*H. Bullen & Son, Ltd.	16,279

Northampton.—External painting works, etc., at the Town Hall, for the C.B.:—

*F. Wells	£254	10	6

Northampton.—Provision of shop fronts to houses in St. David's-road, for the C.B.:—

*Ansell & Brown	£103	15	

Ossett.—Demolition of building and erection of new, for the T.C. Mr. H. Holmes, Borough Engineer & Surveyor:—

*G. Moorhouse, Ossett.

Plymouth.—Jobbing work, for the Corporation:—

*Pearn Bros., Ltd., Plymouth.

Plymouth.—Internal decoration of 138 houses on the Lower Mount Gold and North Prospect housing sites, for the C.B.:—

*Pearn Bros., Ltd.	£1,901	5	

Plymouth.—Supplying and erecting two shop fronts for the shops recently provided in Lanhydrock-road, on the Lower Mount Gold site, for the C.B.:—

*Hayter & Coles	£225		

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Plymouth.—Shop fronts at Nos. 57, 59, 65 and 67, Swilly-road, for the C.B.:—

*Pearn Bros., Ltd. ..... £494.

Preston.—38 non-parlour houses on the Holme Slack housing site, for the C.B. Mr. W. Platt, Borough Engineer:—

*Leyland Construction Co., Leyland.

Reading.—Three concrete and reinforced concrete pre-sedimentation tanks, with weirs, channels, pipe lines, sluice valves, penstocks, floating arms, etc., at the sewage disposal works, Manor Farm, for the C.B. Mr. A. S. Parsons, Borough Engineer and Surveyor:—

‡Collier & Catley, Ltd., Reading.

Rotherham.—Hall, for the Management of the Salvation Army, on a site at Denaby Main, near the church. Mr. Oswald Archer, architect, Salvation Army International Headquarters, 101, Queen Victoria-street, London, E.C.4:—

*Greathead Bros., Conisborough.

Scarborough.—Engineering work for the new medicinal baths, for the Corporation. Mr. H. W. Smith, Borough Engineer:—

*Brightside Foundry and Engineering Co., Ltd., Sheffield.

Sheffield.—Licensed premises to be known as the "Norton" Hotel, having frontages to Chesterfield-road and Norton-lane, Greenhill, for Messrs. Tennant Bros., Ltd., Exchange Brewery. Messrs. Gibbs, Flockton & Gibbs, architects, FF.R.I.B.A., St. James'-row, Sheffield:—

*A. Bradbury & Sons, Sheffield.

Sheffield.—Ventilation and deodorising plant for the new abattoirs, for the Corporation. Mr. W. G. Davies, F.R.I.B.A.:—

*Brightside Foundry and Engineering Co., Ltd., Sheffield.

Skipton.—Extensions to the Girls' High School. Mr. H. Wormald, architect to the West Riding C.C.:—

*Thos. Duckett & Son, Belmont Wharf, Skipton £908 11 6

Smethwick.—Offices and showrooms in High-street, for the Shropshire, Worcestershire and Staffordshire Electric Power Co.:—

*Maddocks & Walford, Birmingham.

Stockport.—Super garage and reconstructing a number of houses for shop premises and lock-up garages in Bramhall-lane, for Mr. J. Lindsey, automobile engineer, Mr. F. Hearne, A.R.I.B.A., architect, 42, Deansgate, Manchester:—

*F. Mitchell & Sons, Ltd., Manchester.

Sunderland.—74 houses on the Ford Hall estate, for the T.C.:—

*W. Welford, Whitburn.

Swansea.—For caretaker's lodge at (*a*) Council Elementary school at Cadle, and (*b*) the Council Elementary school at Cwmrhydyceirw, for the E.C. Mr. Ernest E. Morgan, A.R.I.B.A., Borough Architect:—

T. M. Jones, Fforestfach ..... *(*a*) £528
*(*b*) 528

Uxbridge.—Footbridge at Swan bridge, Cowley Mill-rd., for the U.D.C.:—

*Victoria Construction Co.

Wellingborough.—Public convenience at Bassett's Close Recreation Ground, for the U.D.C. Mr. R. S. Henshaw, surveyor, Council Offices, Swanspool:—

Hacksley Bros., Wellingborough	... £607 0
C. Adams & Co., Wellingborough	... 570 0
W. Thompson & Son, Irthlingborough	566 0
*Stevens & Co., Wellingborough	..... 547 18

Wolverhampton.—Extensions to the premises of Messrs. Jenks & Cattell, Ltd., Dean-street. Mr. Worrall, architect, 8, North-street:—

*R. Speake & Sons, Wolverhampton.

Steelwork—
*Tildesley, Darlaston.

Glazing—
*Mellowes & Co., Sheffield.

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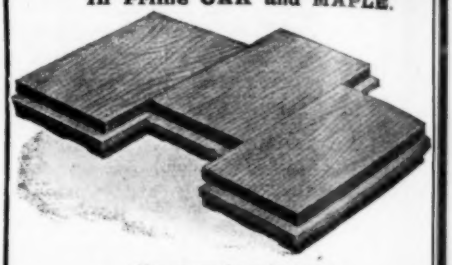
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